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FILE 303/1/010

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT : James W. Dominico

**RECEIVED**

SERIAL NO.: 10/043,547

**FEB 25 2004**

FILED : JANUARY 11, 2002

FOR : METHOD AND MACHINE FOR SUBSTANTIALLY SIMULTANEOUSLY  
PRINTING CONTAINERS AND APPLYING LABELS THERETO

EXAMINER : SUE A. PURVIS

ART UNIT : 1734

DECLARATION UNDER 37 C.F.R. 1.131

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, James W. Dominico, the inventor in the above-identified application, hereby depose and swear as follows:

1. I am operations manager for Polytype America Corp., 10 Industrial Avenue, Mahwah, New Jersey 07430, and have held this position for twelve years. Polytype America Corp. is in the business of designing, manufacturing and selling printing machines that print on cups, lids, tubes, cans and other similar products, and I am very knowledgeable in this area.

2. I am one of the named inventors on the following U.S. Patent Nos.:

- a) 5,746,570 (Apparatus for positioning a handle of a pail for a printing operation on the pail);
- b) 5,154,315 (Lid loading and conveying assembly);

- c) 4,805,758 (Crossed turret cup feeder);
- d) 4,671,093 (Transfer assembly for tube printing apparatus);
- e) 4,669,376 (Tube aligning assembly for tube printer);
- f) 4,587,926 (Bottom rim coater for intermittently operated container decorating apparatus);
- g) 4,543,883 (Apparatus for printing frustoconical articles);
- h) 4,343,391 (Takeoff and restacking device for cup-like containers); and
- i) 4,332,316 (Cup-stack delivery mechanism).

3. I conceived the subject matter of the above-identified patent application as early as February 16, 2000, while an employee of Polytype America Cop.

4. The invention of the above-identified patent application was reduced to practice no later than January 11, 2002, with due diligence from at least as early as said date of February 16, 2000. The reduction to practice is a result of the filing of the present application and the making of a machine according to the invention at about the same time, and selling of the same.

5. In support thereof, I provide the following information and documentation which is in chronological order and which sheets are labeled in accordance with the paragraph identifications for the same:

A. A log entry on February 16, 2000, regarding using a labeler for blowing labels on containers on a mandrel of a printing machine. The log entry discusses a meeting to be held on February 29, 2000 or March 1, 2000 with personnel from the Label-Aire division of U.S. Tape & Label, 2092 Westport Center Dr., St. Louis, MO 63146 at Fabri Kal Corp. of Crestwood. Industrial Park, 955 Oak Hill Road, Mountain Top, PA 18707. The page has been redacted to remove all other non-relevant data.

B. A log entry on February 22, 2000, stating that Robert (Bob) DeGrand of Label-Aire will be at Fabri Kal Corp. on February 24, 2000. Label-Aire has manufactured and sold labeling apparatus that removes labels from a web and blows the labels onto containers or other devices. The Label-Aire Model No. 2111 is a high speed air-blow label applicator that has been sold for many years prior to the year 2000, and is the label applying device numbered as 30 discussed in the above-identified patent application. The page has been redacted to remove all other non-relevant data.

C. A blueprint (No. LD-132.377-NA) that I instructed to be created at Polytype America Corp., and which is dated March 3, 2000. The blueprint is reproduced as two pages in order to fit on 8½ x 11 inch sheets of paper and labeled at the bottom as C1 and C2. The upper view on the second page is a top plan view and the lower view on the same page is a side elevational view

with the rotatable printing blanket cylinder not shown. The blueprint shows a printing machine that is a floor plan of Polytype's BDM-611/920 Cup Printer for a 44 oz. and 32 oz. stadium cup. In order to show correspondence with the elements of the present application, the various parts in this drawing have been numbered with the same elements as those in the above-identified patent application. Specifically, In the top view only, there is a rotatable printing blanket cylinder 12. The BDM-611/920 Cup Printer, as is conventional, has a printing blanket thereon. There is also shown a rotatable cylinder 16 having different mandrels 18 spaced apart at the circumferential edge thereof, with each mandrel 18 to be supplied with a cup or other container or the like having an exterior surface to be printed by the printing blanket on printing blanket cylinder. The cups are supplied in a stacked relation from a cup infeed chute 22. As the cup on each respective mandrel 18 passes to the printing position of the printing blanket, that mandrel 18 is rotated about its own axis. The printing position in the blueprint is located at the nine o'clock (9:00) position of the rotatable cylinder 16. A label supply ribbon or web 34 having a plurality of spaced apart labels thereon is supplied from a label supply cart which is mounted on casters and identified in the upper drawing on the second sheet. The web 34 is supplied to a label applying device 30 which applies the label to the cups on

the mandrel which is shown at the nine o'clock position. This blueprint thereby shows the blowing on of labels onto a cup at the nine o'clock position of a Polytype BDM-611/920 Cup Printer, which is the same position where printing occurs.

D. A log entry on March 13, 2000, stating that Robert (Bob) DeGrand of Label-Aire will send a test unit of their Model No. 2111 label applying device to Polytype for mandrel testing. The page has been redacted to remove all other non-relevant data.

E. A document entitled R&D Product, Proj/Job J012-1 which discusses a floor test of a mock-up performed at Polytype and supervised by me, to test whether a label could be blown onto a cup positioned on a rotating mandrel. The document is two pages, labeled as E1 and E2. The test was performed substantially on March 20, 2000, the date of the document. The document also lists other dates, and further tests were performed on those dates, and therefore, the document was updated on those dates. Specifically, on June 12, 2000, further tests were performed with respect to sensors to determine if the label could be blown onto the cup at the mandrel in timed relation so that it was blown onto a specific area of the cup, that is, the blank area, in response to sensing of the rotational position of the cup. The tests were successful.

F. A document dated March 21, 2000, identifying the Label-Aire Model No. 2111CD label applicator shipped to me at

Polytype America Corp.

G. A letter dated March 23, 2000 from Robert (Bob) DeGrand of U.S. Tape & Label, of which Label-Aire is a division, confirming the meeting at Fabri-Kal, and providing pricing for the Model No. 2111-CD Label-Aire Air-Blow applicator with extended snorkel to fit inside turret indexer geography. The letter states that the labeling system applies coupon labels to plastic cups while on the indexing turret printer. The snorkel is the platform that holds the device and permits it to extend into the tight area at the nine o'clock position. The letter specifically states on page 1 that the unit is mounted to match the turret nine o'clock spindle position for labeling the outside tapered wall of cups. In addition, the snorkel extension is mounted to an X-Y machine tool slide assembly. The price has been redacted on page 2 as being confidential information. The document is three pages, labeled as G1-G3.

H. As indicated above at "E", floor testing was being performed on March 20, 2000 and June 12, 2000 to determine if the concept would actually work. Further floor testing and refining was performed between June 12, 2000 and January 12, 2001. By January 12, 2001, I determined that the testing was sufficiently satisfactory that we could make an offer for sale, whereupon the machine would be engineered for sale.

I. A letter dated December 20, 2000 from Pieter van der Griendt, President of Polytype America Corp. to one of its customers, a major paper manufacturer, offering the device of the above-identified patent application, for sale. The letter is thirteen pages, identified as I1-I13. The customer's name and the pricing have been redacted as being confidential. The addition of the Label-Aire Labeling System, Model 2111-CD can be found at paragraph number 9.11 at pages I7-I8. The paragraph states that the labeling system will apply pressure sensitive labels to the sidewall of containers while the containers are on the printer mandrels, and that label application will be performed at the print position, by means of a snorkel application head. It further states that the label must be applied into a non-printed window equal to the dimension of the label, plus the stated tolerance of 3 mm.

J. A letter dated December January 12, 2001 from Rod Brynildsen, Senior Sales Representative of Polytype America Corp. to the customer of "I". The letter and attachment thereto are three pages, identified as J1-J3. The letter modifies paragraph 9.11 of the letter of "I" to specifically recite the 2111-CD Label-Aire Air Blow Applicator, with 24" extended snorkel with slim line extension and "peeler bar" for label application. The letter states on page 2 that the system applies the labels to an "open window" of graphics, thereby placing the label in a

specific location on the cup, rather than being randomly located.

K. Internal Polytype Memorandum dated January 22, 2001 from Rod Brynildsen of Polytype America Corp., with the customer information redacted, to show further diligence toward reduction to practice.

L. Memorandum dated January 30, 2001, entitled TC Report by Rod Brynildsen about requirements for said machine in regard to discussions with said customer (redacted as to customer information). This is two pages, identified as L1 and L2.

M. Memorandum dated February 1, 2001 from Rod Brynildsen to me an others at Polytype America Corp. about requirements for said machine ordered by said customer (redacted as to customer information).

N. Memorandum dated February 2, 2001, entitled TC Report about requirements for said machine in regard to discussions with Robert (Bob) DeGrande of Label-Aire (redacted as to customer information).

O. A blueprint (No. QD-135.355-NA) that I instructed to be created at Polytype America Corp., and which is dated February 7, 2001, with revisions dated February 16, 2001 and February 23, 2001. Whereas the LD in the No. of the blueprint of "C" above refers to a layout design, the QD in the No. of this blueprint refers to a quote design, that is, for said customer. The blueprint is reproduced as four pages in order to fit on 8½ x

11 inch sheets of paper, and are identified as 01-04. The two larger views are similar to the two views of the blueprint of "C", and the same comments apply.

P. Memorandum dated March 13, 2001 from Paul Cino, chief engineer of Polytype America Corp. to Bob DeGrand of Label-Aire, supplying the blueprint of "C" and identifying the same.

Q. Memorandum dated March 13, 2001 from Paul Cino of Polytype America Corp. to Bob DeGrand of Label-Aire, supplying an enlarged view of a portion of the blueprint of "C", showing the nine o'clock position. Numerals corresponding to those added at "C" above have been added to this drawing as well, in correspondence with the above-identified application.

R. Memorandum dated April 26, 2001 from Paul Cino of Polytype America Corp. to Luciano Chiovitti of Label-Aire, supplying various drawings in order for Luciano Chiovitti to modify the Label-Aire unit to fit the Polytype printing machine.

S. Letter dated May 8, 2001 from U.S. Tape and Label to myself at Polytype which provides an amended quote, and further describes the Label-Aire device and the purpose of mounted at the nine o'clock spindle position for labeling the outside tapered wall of cups. There are three pages, identified as S1-S3.

T. Purchase Order of May 31, 2001 from Polytype America Corp. to U.S. Tape and Label Corp. for the custom Label-

Aire Model No. 2111CD-LH, with the price redacted for confidentiality.

U. Memorandum dated June 11, 2001 from Luciano Chiovitti of Label-Aire to myself and others at Label-Aire regarding the custom label unit to be manufactured for said customer. There are two pages, identified as U1 and U2.

V. A blueprint (No. LC-135.888-NB) that I instructed to be created at Polytype America Corp., and which is dated June 12, 2001 that shows the Label-Aire snorkel for Polytype's BDM printing machine for said customer.

W. Memorandum dated June 13, 2001 from Paul Cino of Polytype America Corp. to Luciano Chiovitti of Label-Aire, supplying the revised snorkel drawing of v.

X. A blueprint (No. V484002) dated June 29, 2001 and created by Label-Aire, showing more specifics as to the position of the Label-Aire 2111CD device into the Polytype printing machine. There are three pages, identified as X1-X3.

Y. Memorandum dated July 9, 2001 from Paul Cino of Polytype America Corp. to Luciano Chiovitti of Label-Aire, regarding design of the drawing of V483002 of "X".

Z. Memorandum dated July 11, 2001 from Paul Cino of Polytype America Corp. to Luciano Chiovitti of Label-Aire, regarding a revised layout to be designed for said customer.

AA. A blueprint (No. V484005) dated August 7, 2001, showing the revised mounting of the Label-Aire 2111CD label applying device to the Polytype printing machine with an X-Y mounting arm. There are three pages, identified as AA1-AA3.

BB. Thereafter, the invention was fully constructed and made operable for its intended purpose, and then sold to said customer on or about January, 2002.

6. From the above, and in relation to the original claims in the present application, the elements and construction of the invention were conceived by me long prior to the July 19, 2001 filing date of Dewig et al.

7. Specifically, the machine for printing on containers and applying labels thereto is the Polytype Model No. BDM-611/920 Cup Printer for printing on containers and applying labels thereto. This is shown, for example, as early as March 3, 2000 by the blueprint of "C" above. This drawing shows a printing blanket cylinder having a printing blanket (identified as number 12) thereon. The inking assemblies for applying ink to the printing blanket are well known in such a printing machine, for example, as shown in U.S. Patent No. 4,892,184 disclosed on page 1 of the present application, and as sold by Polytype America Corp. under the designation Model No. BDM for many years prior to July 19, 2001. Such Model No. BDM printing machines have been sold with a support member having a plurality of mandrels for holding

containers thereon to be printed; a support member drive for moving the support member to position each mandrel in sequence at a printing position adjacent the printing blanket; and a mandrel drive for rotating each mandrel positioned adjacent the printing blanket in order to rotate a container on said mandrel at the printing position against the printing blanket to print on an exterior surface of said container, as is well known in the art.

8. The key to the invention is the label applying device for applying a label to the predetermined area of the container on which no ink is applied, substantially simultaneously with printing of the exterior. The first document to specifically discuss this aspect is "G" above dated March 23, 2000, which discusses mounting of the label applying device (Model 2111-CD Label-Aire Air-Blow Applicator) to the printing machine to match the turret 9 o'clock spindle position for labeling the outside tapered wall of cups. The 9 o'clock spindle position on the Polytype machine is the position where printing of the cups occur, and this corresponds to the limitations of claim 2 of the present application. Of course, there would be timing of the label applying device to ensure the label is applied to the predetermined area on each container. This is the purpose of the photoelectric label sensing discussed in "G".

9. As to the specific elements of the label applying device of claims 3-5, these were well known years prior to the July 19,

2001 date and do not by themselves form part of the invention. Specifically, all of these elements were well known years prior to the July 19, 2001 date by reason of being part of the Label-Aire Model 2111 Air-Blow Applicator that was on sale.

10. The adjustment device of claim 7 is discussed on page 1 of the March 23, 2000 letter of "G" by the snorkel extension being mounted to a custom X-Y machine tool slide assembly and is used for label positioning.

11. The same remarks made in paragraphs 7-10, apply to claims 12-16 of the present application, which are method claims that use this apparatus.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

2/16/04  
Date

James W. Dominico  
James W. Dominico

2/16/00

vt.

Fix all for 2/29 or 3/1 would be good for ~~2/28~~  
Tom - No dinner due - July 4th for ~~2/28~~  
Kathy - Ramp up fees should be 250 & then  
monthly up to from ~~THESE~~ ~~amounts to~~  
- Coming to central cities - like Park ~~for~~  
- Miguel was very good

A

2/29/00

Bob Dylan - Will be @ FLC @ 1:30pm 12 Noon tomorrow

3/1/00

B

C1

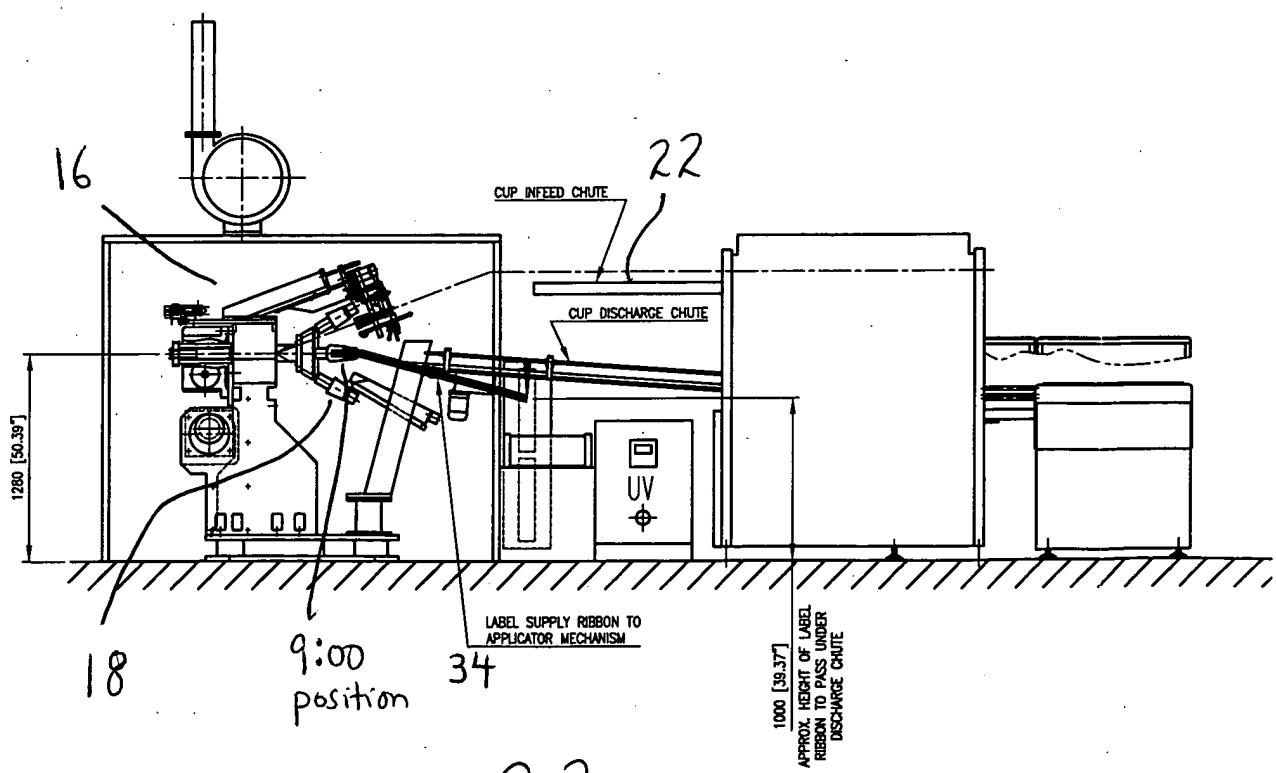
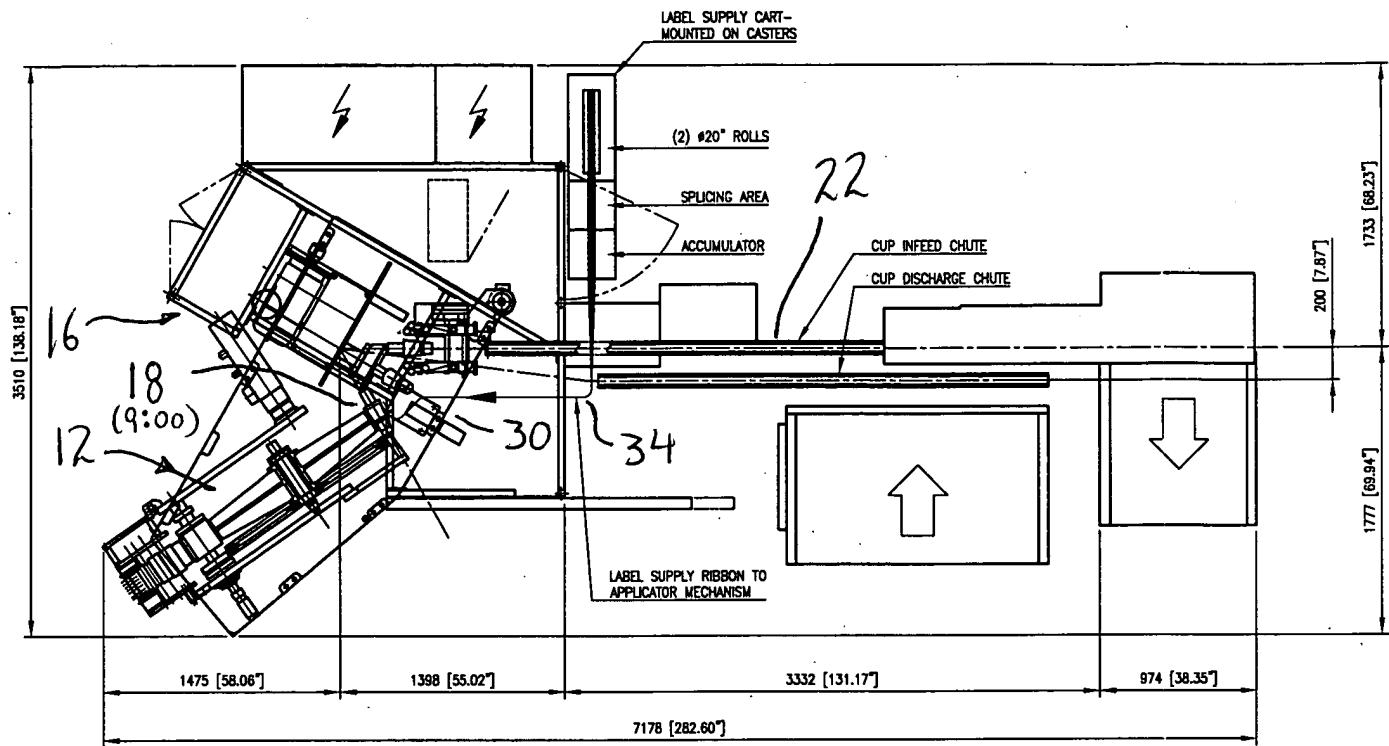
**NOTICE**

This Drawing is confidential, has not been published, and is the sole property of Polytype America Corporation and is lent to any borrower for his confidential use only. In consideration of the loan of this drawing, the borrower promises and agrees to return it upon demand and agrees that it shall not be reproduced or copied in any manner, lent or otherwise disposed of for which it is specifically furnished.

DRAWING		DESCRIPTION		SPECIFICATIONS	DRAWING NUMBER
DATE	DD	1:20	FOR NON-BALLOONED DIMENSIONS ONLY		
1/20	3/3/00	1:20	UP TO OVER OVER OVER OVER		LD-132.377-NA
			0.3 0.4 0.5 0.6 0.7 0.8		
			1.0 1.1 1.2 1.3 1.4 1.5		
			32.0 32.5 33.0 33.5 34.0		
				WEST 1 1	

**polytype**  
**America**

TITLE - LAYOUT - LABEL APPLICATION - BDM-611-8



D

3/13/00.

~~Casecar Bus~~ D - Will send test unit out to  
US for maneuver testing.

R & D PROJECT			PROJ/JOB: J012-1		
ENTRY DATE:	3/20/00	STATUS (A,C):		E/R DATE	DU DATE ISSUED SHIPPED
CUST NAME:	LABELAIRE	CUST LOCATION:			
CUST CONTACT:		COMM. NR.:			
PAC CONTACT:	FELIX	MODEL:			
PROJECT NAME:		PHASE CODE:			
PROJECT DESC:					
QTY	PART NUMBER	DESC			
1-		TEST TO SEE HOW FAST A LABEL CAN BE PUT ON			
2- (1X)	PN-132.870-NA	SENSOR-PHOTOELECTRIC TRI-TRONIC BLUE LIGHT	6/12/00		
3-		# SPBBCF4			
4- (1X)	PN-132.871-NA	SENSOR-CABLE QUICK DISCONNECT 15' TRI-TRONIC	6/12/00		
5-		# GSEC-15			
6- (1X)	PN-132.872-NA	CABLE-FIBEROPTIC RECT. FLAT TRI-TRONIC#	6/12/00		
7-		BF-C-36			
8-(0X)	LB-135.334-NA	LAYOUT	2/20/01		
9-(1X)	RB-135.333-NA	MANDREL-REWK	2/20/01		
10-(1X)	MA-135.332-NA	SLEEVE-	2/20/01		
11-					
12-(0X)	LB-135.400-NA	LAYOUT	2/20/01		
13-(2X)	RA-135.399-NA	WHEEL-REWK	2/20/01		

11

R & D PROJECT		PROJ/JOB: J012-1	
ENTRY DATE:	3/20/00	STATUS (A,C):	
CUST NAME:	LABELAIRE	CUST LOCATION:	
CUST CONTACT:		COMM. NR.:	
PAC CONTACT:	FELIX	MODEL:	
PROJECT NAME:		PHASE CODE:	
PROJECT DESC:			
QTY	PART NUMBER	DESC	
1-(4X)	RA-135.401-NA	BUSHING-REWK	2/20/01
2-(8X)	MA-135.398-NA	SLEEVE-	2/20/01
3-			
4-			
5-			
6-			
7-			
8-			
9-			
10-			
11-			
12-			
13-			

11  
12





March 23, 2000

032300

Mr. Jim Dominico  
POLYTYPE AMERICA  
10 Industrial Avenue  
Mahwah, NJ 07430

FAXED

BY: \_\_\_\_\_

Dear Jim:

*It was a pleasure seeing you again in our recent visit to Fabri-Kal. The following is pricing you requested for the Label-Aire machinery we discussed in our meeting to be integrated to your cup printing machine.*

*We are pleased to submit the following equipment proposal:*

#### **EQUIPMENT PROPOSAL**

##### Application specification:

*Custom Labeling System to apply coupon labels to plastic cups while on your indexing turret printer.*

##### System to include:

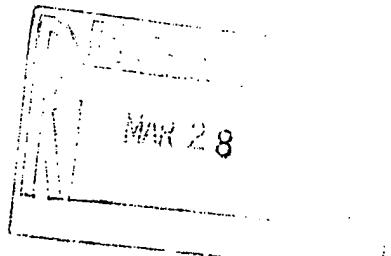
- 1- *Custom Model 2111-CD Label-Aire Air-Blow Applicator, left handed, with an approximate 18" to 24" extended snorkel with slim line extension to fit "inside" turret indexer geography, high speed Sigmax stepper motor dispense drive with custom CPU; air blast reservoir; microprocessor electronics "works in a drawer" with remote operator keypad - display control, photoelectric label sensing; unwind and rewind assemblies removed. Unit mounted at approximately reels up angle to match turret "9 O'clock" spindle position for labeling outside tapered wall of cups.*

*Note: Snorkel extension is mounted to custom X-Y machine tool slide assembly independent of faceplate and is used for label positioning.*

- 1- *Remote electronics control panel with 10 ft. umbilical cord.*

*Cont'd...*

G1



PolyType America  
March 23, 2000

- 2 -

- 1- Standard photoelectric product sensor included for set-up, testing or operational purposes.
- 1- Non-Stop Dual Unwinder with 20" diameter roll capacity and turn bar for web path guiding to labeler, with splicing table and low label alarms with end of web shut off to labeler; with powered rewind liner take-up assembly.

**TOTAL SYSTEM PRICE: \$**

**Warning:**

*Please be advised that the U.S. Department of Labor, Occupational Safety & Health Administration (OSHA) requires all manufacturers, distributors and importers supplying hazardous materials to furnish Material Safety Data Sheets (MSDS's) with those materials. Only the suppliers know if a particular material is subject to this requirement. All substances and materials provided under these guidelines will be returned to the customer for disposition after these are no longer required by Label-Aire. A detailed explanation of this program can be found in Label-Aire's April 9, 1993 general memorandum.*

**Label size:**

*Approximately 3" wide x 2" feed to approximately 1-1/2" wide x 1-1/16" feed, paper material.*

**Label tolerance:**

*+/- 1/32" static stack. Label position accuracy is directly related to consistent directional make-up of the product to be labeled.*

**Speed:**

*Up to 200 cycles per minute.*

*Note: Jim, this price does not include a stand. PolyType would be responsible for supplying the mounting hardware.*

*Cont'd...*

*G. 2*

PolyType America

March 23, 2000

- 3 -

*Delivery: 7 to 8 weeks*

*F.O.B. : Fullerton, CA*

*Terms: One third of the order due net in advance with the order, one third of the order due upon notification that the order is ready to ship and the final one third of the order is due within 30 days of shipment.*

*Installation: U.S. Tape and Label Corporation would provide you with a field technician to install your machinery and train your staff at a rate of \$70.00 per hour plus travel and living expenses.*

*Jim, thank you for this opportunity to be of service. Should you have any questions, please feel free to call me at (800) 569-1906.*

*Sincerely,*

*U.S. TAPE AND LABEL CORPORATION*



*Robert J. DeGrand*

*Sales Manager*

*Label-Aire Division*

*G3*

December 20, 2000

**Polytype America Corp.**

10 Industrial Avenue  
Mahwah, NJ 07430-2205  
Tel: +1 201-995-1000  
Fax: +1 201-995-1080  
www.polytype-usa.com  
e-mail: info@polytype-usa.com  
U.S.A.

Mr.

**RE: PAC Quotation No. 00/236-D/RB**

Dear Mr.

We take pleasure in submitting the following quotation for your review and consideration.

**One (1) POLYTYPE, 8-9 color printing system for tapered containers**

**Model: BDM 611/920 UVD**

For the operation from one side only and as per layout drawing No. 10004033, consisting of:

**1. Inking/printing unit**

**1.1. Print section**

- Separate Servo-drive for printing unit
- **Chrome plated offset cylinder** with 6 blanket position
- Quick change (electronic switching) from 6 blanket to 3 blanket mode.
- No cup - no print system, pneumatic loaded for consistent printing pressure.
- Cup hold-on System.
- X, Y and angle adjustments with electronic read out. (positioning indicator on display with stored data)

**1.2. Plate Cylinders ( 8x )**

- Spring loaded pin bars
- Plate cylinder gears are hardened and ground
- Radial and axial running register adjustments
- Dial indicators for "perfect" registration and fast repeat set ups.
- Pull-out Plate cylinders in positions #1, 7 and 8 for easy access

Note: This pull out feature can not be offered on positions 2 - 6.

---

Polytype S.A.  
26, route de la Glâne  
CH-1701 Fribourg  
Switzerland

---

Polytype America Corp.  
Converting Division  
Alpha Building  
One South Third Street  
Easton, PA 18042-4543

### 1.3. Inking Units ( 8x )

Each unit opens a full 90 degrees for easy access to rollers and plate cylinder.

- Each inking unit is equipped with:
  - 2 applicator rollers (one driven) for inking units N° 1-7
  - 1 applicator roller, driven, for inking unit N° 8
  - 2 oscillating rollers, with cooling connection
  - 2 rubber rollers
  - 1 dab roller, with electronic dab time adjustment
  - 1 doctor roller, with cooling connection
  - 1 leakfree ink fountain (fast-fit, 160 mm wide)
  - pneumatic on/off switch for applicator rollers
  - base unit and connections
  - 8 ink agitators to ink fountains (each)

### 1.4. Wash up system

- 1 Pneumatic motor to drive each inking unit
- 1 Wash up tray to be inserted in the inking units
- System can be used for washing down and inking up

### 1.5. Cooling System for Inking Units

- This system includes all manifolds, piping and rotary couplings to connect the fountain rollers (8) and oscillating rollers (16) to a chiller or heat exchanger (chiller or heat exchanger quoted as options)

## 2. Base, Index and Transfer Unit

### 2.1. Base Frame

- Strong, torsion free, welded base frame

### 2.2. Index Unit

- Heavy duty Parallel Indexer
- Eight stations, 150 degree index
- Driven by precision worm gear reducer
- Worm gear reducer is water cooled
- Index hub with 8 "quick change" mandrel positions

### 2.3. Servo-drive for Indexer

- Indexer has its own servo drive, eliminating vibration transfer from indexer to print unit.

### 2.4. Screw Feeder, type SB 160-4

- Servo driven
- Programmed to start feeding cups when printer reaches a certain rpm during the acceleration process, minimizing start up scrap.
- Automatic timing advance at higher speed levels.
- Located in 1:30 o'clock position

- Four feeder screws ( counter rotating )
- Set up ring for fast change over
- Hinges open for total accessibility

**2.5. Mandrel Drive for Treatment station**

- Located in 12 o'clock position
- Automatic adjustment for drive wheel wear
- Always correct drive wheel pressure

**2.6. Separate mandrel Drive for Print station**

- Located in 9 o'clock position
- Automatic adjustment for drive wheel wear
- Synchronizes mandrel speed and blanket speed
- Minimizes wear of blanket starter strip

**2.7. Mandrel Drive for UV station**

- Located in 6 o'clock position
- Automatic adjustment for drive wheel wear
- Always correct drive wheel pressure

**2.8. Quality Control/Reject Station**

- Located in 4:30 o'clock position
- Push Button for selected blow-off of single cup
- Blow off chute in location convenient for operator

**2.9. Belt Take-off Unit, type BAV**

- Located in 3 o'clock position
- Driven by frequency controlled AC drive
- Slaved to speed of printer
- Scales for easy set up

**2.10. Electrical Control Panel**

- PLC is Siemens S-5
- El. Cabinet (integrated in safety cabin)
- One Electrical hook up to Plant Power
- Main disconnect
- Electronic encoder for all cycle functions

**2.11. Operator Control Panel (OCP)**

- OCP is located on print unit
- Siemens graphic display panel OP-27
- Security levels for operator/set-up/supervisory controls
- Capable of storing more than 100 set-up recipes

**2.12. Pneumatic Panel**

- All pneumatic components in one enclosure

- Enclosure at convenient height for servicing
- Only one air hook up for installation

#### **2.13. Safety Enclosure**

- Completely interlocked for operator safety
- Large doors on all sides for open access
- Noise suppression insulation on inside of enclosure
- Clear window to observe operations inside enclosure, during set up (at high speed), without compromising operator's safety.

#### **2.14. Documentation**

- Two (2) sets of technical documentation
- Includes Manuals for operation, service instruction, trouble shooting,
- Bill of Materials (BOM's), list of recommended spare parts, assembly drawings and diagrams.
- Electrical Diagram, PLC Program
- Standard Language is English

### **3. One Set of Tooling (for 32 oz container)**

- 1 Set up ring for screw feeder.
- 4 feeder screws.
- 8 mandrels
- 1 hold-on disc

### **4. Infeed Elevator, type MZE 130/1500**

- Stainless steel trays: 1500 mm (59") wide
- Conveyor belt to transfer cups from elevator to printer, with frequency controlled AC drive, slaved to speed of printer
- Infeed channel from conveyor to screw feeder (quickly removable)
- Shallow infeed angle eliminates "double cup" condition associated with dropping stacks
- Maximum cup diameter is 130 mm (5.15")
- **For larger cup diameters select (optional) cradles 160 mm (6.3") (Not required for International Paper).**

### **5. Flame Treatment Unit**

- Unit manufactured by Arcotec
- Gas and airflow gauges
- One knob flame adjustment
- Burner according to cup size, located in 12 o'clock position of the index hub
- Mandrel rotation monitor
- Exhaust system to remove hot air from burner area
- Pin hole detection can be added (optional)

### **6. UV Curing System**

- UVITERNO system, 8KW, 530 W/cm, 1350 W/inch

- Three power levels, 6, 7 and 8 kW
- UV control unit with Display
- Sliding lamp unit - during short machine stops, lamp will go to half power and lamp unit will retract away from the mandrel area
- Various UV safety and control functions
- Cooling system for forced air cooling of lamp unit.
- Mandrel rotation monitor
- Exhaust system will remove hot air and ozone from UV lamp area

## 7. Discharge Automation

### 7.1. **Take off conveyor**

- Conveyor belt to transfer cups from belt take off to counter
- Belt speed slaved to speed of printer to eliminate fluctuation in stack pressure for accurate count.

### 7.2. **Counter**

- Counting accuracy +/- 0 cups
- Laser counter
- Pneumatic stack separator

### 7.3. **Discharge table**

- Multiple stack discharge table with adjustable angle

## 8. **Electrical specifications**

460 V, 3 Ph, 60 Hz

## 9. **Packing and Loading**

**TOTAL PRICE (CIF, Shelbyville, IL)**

**US \$**

## 9. OPTIONS SELECTED

### 9.1. **Spare set of six (6) rubber rollers**, consisting of:

**US \$**

- 1 Applicator Roller 100 mm 189 mm wide
- 1 Applicator Roller 82.5 mm 189 mm wide
- 1 Rubber Roller 43 mm 195 mm wide
- 1 Rubber Roller 37 mm 195 mm wide
- 1 Transfer Roller (Dab) 41 mm 160 mm wide

### 9.2. **Additional set of tooling**, consisting of:

**US \$**

- 1 set up ring for screw feeder
- 4 Feeder screws
- 8 mandrels

- 1 hold-on disc

<b>9.3. Progressive control of gas pretreatment with machine speed</b> controlled flame intensity in connection to machine speed (recommended with thermoformed cups).	US \$
<b>9.4. Pin hole detection</b> <ul style="list-style-type: none"><li>- Can be added to printers with Flame Treatment Units.</li><li>- Electrode according to cup height.</li><li>- Working in combination with flame treating.</li><li>- Automatic blow-off of reject cups.</li></ul>	US \$
<b>9.5. Sliding window</b> with el. interlock to observe flame adjustment.	US \$
<b>9.6. Preparation package of the BDM-611/920 to accept a Rennco Sleeving System.</b> This package consists of: <ul style="list-style-type: none"><li>- Electrical interface between printer and the sleeving unit.</li><li>- Mechanical transfer system to transport stacks to the packer or sleever.</li></ul>	US \$
<b>9.7. Rennco Automatic Sleeving System ( )</b> Model 501-36SF, including the following: <ul style="list-style-type: none"><li>- 14" x 36" standard sealing jaw</li><li>- Two (2) variable heat controls</li><li>- Air regulator</li><li>- Filter and lubrication</li><li>- PC controlled timing and sequencing</li><li>- Pneumatically operated</li><li>- Cycle counter - 6 digit</li><li>- Casters</li><li>- Film guide</li><li>- Hole punch - 1/4 round</li><li>- 4 ft. horizontal discharge conveyor</li><li>- Incline conveyor</li><li>- Product load shelf</li><li>- Static eliminator</li><li>- Electric eye - film registration</li><li>- Universal accumulator conveyor</li><li>- A-B controls</li><li>- 52" belt cup infeed conveyor</li><li>- Electric specifications: 220V/240V, 60 cycle, 1 ph</li><li>- Air 80 PSI</li></ul>	US \$
<b>9.8. Rennco Spare Parts Kit</b>	US \$

**9.9. Polypoint/Stoesser VR-1000 Vision Registration System. US \$**

This is an extremely accurate plate punching system, making it possible to eliminate the on-press registration effort. It includes:

- Two BCW cameras
- Monitor
- Cross hair generators
- Heavy duty frame

**9.10. Water temperature control unit. US \$**

- This air cooled system provides an independent "closed loop" cooling system for the indexer reducer and the color head roller train.
- This system allows the use of "glycol" to be used instead of water, preventing rust.
- Accordingly, this system is therefore assured of running clean and free from potential contaminants from a central chiller system which are open to the atmosphere (eliminating the potential for insects, etc. from entering the system).
- This dedicated temperature control unit also provides a more precise temperature control (at the source) that is chosen for the printer's roller train, and not simply what is available from the central chiller - which is typically too cold, causing condensation on the roller shafts.

**9.11. Label-Aire Labeling System, Model 2111-CD US \$**

This labeling system will apply "pressure sensitive" labels to the sidewall of containers, while the containers are on the printer mandrels.

Label application will be performed at the print position, by means of a "snorkel" application head.

**Application requirements/specifications**

- Label size and spacing affect the anticipated production speeds. Anticipated production speed for a  $\frac{3}{4}$ " wide x 1" long label, spaced 1/8" apart, is 350 lpm, on 32 oz container, and 300 ppm, on the 44 oz container.
- Maximum recommended label length: 2" (in direction of label travel).
- Maximum label thickness: 5 mil label.
- Label application must be at the "lead edge" of the "lap" of the printed design.
- Application tolerance is  $\pm$  3 mm.

- The label must be applied into a non printed "window" equal to the dimension of the label, plus the stated tolerance of 3 mm.

## 10. OPTIONS (NOT SELECTED)

### 10.1. Inter-changeable Corona Unit

US \$

This quick change system will allow exchange from the flame pre-treatment to a corona pre-treatment system by simply changing the flame burner with the corona electrodes.

Included with this system, is the following:

- located in 12 o'clock position
- Softal or Arcotec (customer's choice)
- mandrel rotation monitor
- generator with built-in hole and porosity detector
- automatic blow-off device for faulty cups
- can be exchanged against flame treatment unit

Note: 1) Should the corona unit be elected, instead of the flame unit - as the only means of pre-treatment, the cost is then an even exchange.

2) This interchangeable unit can be retrofitted at a later date, if desired.

**The following equipment, materials and services are not included in our quotation:**

foundation and masonry where necessary  
electrical main connection  
compressed air, water and gas main connection  
exhaust air ducting and stacks from machines to outside building and insulation  
where necessary

**Technical specifications of BDM 611/920**

Dia. of printing plate cylinder	200 mm
Max. print height	145 mm
Max. print length in 6 blanket mode	362 mm
Max. print length in 3 blanket mode	502 mm
(Printing plate drawing 10000184)	
Number of blanket positions (changed electronically)	6 / 3
Max. rim dia. of cup (depends on Elevator cradles)	130 mm (160 mm)
Min. rim dia. of cup	60 mm
Max. cup height	160 mm
Min. cup height	35 mm
Min./Max. taper	2 - 10 degrees
Printing blanket thickness	2 x 1,9 mm
Double sided adhesive tape	2 x 0,3 mm
Printing plate thickness (standard 10000184)	0,73 mm
Max. production speed (depending on cup size, stack height, stack length, materials, quality and print design)	up to 36'000 cups/h
Standard paint color of machine	RAL 1013 (pearl-white)
Standard paint color of machine covers	RAL 1013 (pearl-white)
Electric load	approx. 35 kVA
Electrical power (-10% +6%)	<b>3 x 460 V, 60 cycles</b>
Compressed air / consumption max.	6 bar / 120 Nm3/h, ¾" G
Air treatment unit	20 micron abs. / oil-free
Permissible humidity	33% rel. at 20°C
Nature Gas, (8'700 kcal/Nm3) ¾" 14 TPI LH	<b>20-100 mbar, max 1,3kg/h</b>
Water temperature (for cooling of the ink units)	25°C + / - 3°C
Quantity of heat to be dissipated / hose diam.	2000 Kcal/h / 16 mm
Exhaust (diameter of pipe 140 mm)	1600 m3/h 30°C
Weight of the basic machine	approx. 7'000 kg

Alterations of the technical data are possible for unknown shapes, materials and surface conditions as well as new developments.

## Conditions

<b>Prices</b>	Prices quoted in U.S. Dollars,
<b>Packing, Handling and Loading.</b>	Included in quoted price.
<b>Insurance</b>	Transportation insurance from Polytype America Corp. (PAC) to customer's will be provided by PAC.
<b>Shipping Method</b>	We recommend the exclusive use of a "house to house" container, transported via air ride trailer.
<b>Delivery</b>	<p>The acceptance test will take place at Polytype's Mahwah, NJ plant in approximately 14 to 16 weeks after receipt of Purchase Order and Down Payment.</p> <p>The delivery is subject to prior sales and will be confirmed at the time the order is placed.</p> <p>In the event the Rennco Sleeving System is elected, this unit will be tested in line with the printer at Polytype America's facility in Mahwah, NJ, prior to shipment to</p>
<b>Payment</b>	<p>30% down payment with order</p> <p>60% on successful checkout at POLYTYPE's factory in Mahwah, NJ before shipment to customer.</p> <p>10% after final acceptance, but no later than 60 days after date of shipment.</p>
<b>Taxes</b>	This quotation does not include any Federal, State or Local Taxes. If these apply, they will be the responsibility of the customer.
<b>Validity</b>	1 month from date of this quotation.

**Special conditions  
of sale:**

- 1) The acceptance test will be conducted at Polytype America Corporation's facility, in Mahwah, NJ and final payment will be due after testing at 's plant. This testing will be in accordance with 's acceptance test protocol, using customer supplied product, plates with commercially available inks and blankets.
- 2) The equipment will be designed to comply with 's health and safety program guidelines and Appendix A.

**Installation and start up**

A service technician will be provided by POLYTYPE for the assembly, start up and training of customer personnel for a period of two (2) weeks. (This service will be at no charge to ).

Note: If the installation is extended for reasons not associated with the equipment itself, then this additional time will be charged at our normal service rate of \$680 / day plus expenses.

After 30 days, Polytype will provide a service technician for a period of one (1) week for additional training. Polytype will provide the labor cost for this visit, at no charge, to will pay only for the travel and living expenses for this additional week.

**Cup samples for Tooling**

Customer should provide 100 sample cups to be in POLYTYPE's possession at least 6 weeks before delivery. If this material is not timely received, it may affect the delivery.

**Cup samples and Printing  
materials**

Customer to provide approximate 20,000 cups, printing plates, inks and rubber blankets for internal testing and acceptance test, four (4) weeks prior to delivery date. If this material is not timely received, it may affect the delivery.

**General Terms**

The General Terms of Sale and Delivery, dated September 1<sup>st</sup>, 1993, attached, will apply to this quotation.

Respectfully submitted,  
POLYTYPE AMERICA CORP.

Pieter S. van der Griendt  
President

CC: Mr.  
Mr.  
Mr.

January 12, 2001

**Polytype America Corp.**  
10 Industrial Avenue  
Mahwah, NJ 07430-2205  
Tel: +1 201-995-1000  
Fax: +1 201-995-1080  
[www.polytype-usa.com](http://www.polytype-usa.com)  
e-mail: [info@polytype-usa.com](mailto:info@polytype-usa.com)  
U.S.A.

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Mr.

**RE: Addendum PAC Quotation No. 00/236-C/RB**

Dear :

Further to our most recent conversation and your request, we are pleased to provide the referenced addendum to quotation No. 00/236-C/RB, which includes an on mandrel label aire labeling system to the "Options Selected" section of this quotation.

This system allows labels to be applied to the containers while they are on the printer mandrel, saving the need for off line application and double handling, reducing application costs.

The system also allows the labels to be applied to into an "open window" of graphics, there by placing the label in a specific location on the cup (not randomly located).

Please note that the anticipated application speeds for 's 32 oz container is 350 lpm and 300 lpm for the 44 oz container with a label measuring  $\frac{3}{4}$ " x 1" spaced 1/8" apart.

We hope that this is of assistance to you. Should you have any questions, please do not hesitate to contact us.

Very truly yours,

Rod Brynildsen  
Senior Sales Representative

CC: Mr.  
Mr.  
Mr.

---

Polytype S.A.  
26, route de la Glâne  
CH-1701 Fribourg  
Switzerland

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Polytype America Corp.  
Converting Division  
Alpha Building  
One South Third Street  
Easton, PA 18042-4543

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// //

J1

January 12, 2001

Mr.

**RE: Addendum PAC Quotation No. 00/236-C/RB**

**9. OPTIONS SELECTED**

**9.11 Label-Aire Labeling System, Model 2111-CD**

This labeling system will apply "pressure sensitive" labels to the sidewall of containers, while the containers are on the printer mandrels.

Label application will be performed at the print position, by means of a "snorkel" application head.

This system will consist of the following:

- Custom model 2111-CD Label-Aire Air Blow Applicator (left hand).
- 24" extended snorkel with slim line extension and "peeler bar" for label application.
- High speed stepper motor.
- Air blast reservoir.
- Remote operator key pad / display control.
- Photo electric product sensor and label / no label sensing system.
- Non-stop dual unwinder with 20" diameter roll capacity.
- Low level label alarm.
- Splicing table.

Polytype S.A.  
26, route de la Glâne  
CH-1701 Fribourg  
Switzerland

Polytype America Corp.  
Converting Division  
Alpha Building  
One South Third Street  
Easton, PA 18042-4543

APPLICATION REQUIREMENTS/SPECIFICATIONS

- Label size and spacing affect the anticipated production speeds. Anticipated production speed for a  $\frac{3}{4}$ " wide x 1" long label, spaced 1/8" apart, is 350 lpm, on 32 oz container, and 300 ppm, on the 44 oz container.  
Maximum recommended label length: 2" (in direction of label travel).
- Maximum label thickness: 5 mil label.
- Label application must be at the "lead edge" of the "lap" of the printed design.
- Application tolerance is  $\pm 3$  mm.
- The label is to be applied to the graphic area of the container and must be applied into a non printed "window" equal to the dimension of the label, plus the stated tolerance of 3 mm.
- Some labels and application conditions may require a 1/8" wide sensor identification marking for verification of label placement on the container.

PRICE

US. \$

**Note: This Addendum to Quotation No. 00/236-C/RB is subject to all Terms and Conditions as stated in that quotation.**

Respectfully submitted,  
POLYTYPE AMERICA CORP.

Rod Brynildsen  
Senior Sales Representative

J3

paulc

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**From:** rod <rb@polytype-usa.com>  
**To:** Jim Dominico <jd@polytype-usa.com>; Paul Cino <pc@polytype-usa.com>; Felix Gómez <fg@polytype-usa.com>; Pieter van der Griendt <pv@polytype-usa.com>  
**Cc:** Carmen Fraguas <cf@polytype-usa.com>  
**Sent:** Monday, January 22, 2001 4:08 PM  
**Subject:** Label Aire Unit

I spoke with [redacted] about the forthcoming order. He advised that the actual PO will come from [redacted] (I also placed a call to [redacted] to F/U.)

[redacted] is trying to gather information concerning the labels they use. He will be supplying representative labels (if possible) of their smallest/ largest/ thinnest/ thickest labels labels. However, since these labels are controlled very tightly he is not sure if they will be able to get this or not.

I gave him Bob DeGrand's name as Bob said that they can help recommend the best adhesive to be used etc. once they are ready to have the labels made for the testing.

I told [redacted] that we will need to be in touch to co-ordinate the amount of labels etc. that we will need for the test. I also told him that we will want a 6" core for the roll( max dia 20"). This helps prevent the roll from taking a set ( compared to some sytems that may use a smaller reel diameter.)

Note : Bob Dégrand advised that the adhesive used is important in the overall running efficiencies that are possible. He said that typically their customers are running in the high 80's to low 90's for application efficiencies. Missing labels on the web are common place( not un-common at any rate.) They have powered unwind systems for both reels - to ensure a controlled unwind of the reel no matter how much is left on the roll.

The splicing table is just to the side of the reels and allows "splicing on the fly" as they also have a low level label sensor that detects when the roll is getting low.( The actual level is programmable).

Rod

K

1/24/01

With:		Date:	January 30, 2001
Comp:		Loc:	
By:	Rod Brynildsen	Orig:	p:\blank forms\tc-report.dot
Subject:	Various	E-Copy:	PV,FG,JD,PC, CF

I spoke with [REDACTED] about various subjects.

### 1) Labeling:

Yesterday we had a conference call with Bob De Grande from US Tape and label as well as with \_\_\_\_\_ from \_\_\_\_\_.

brought up the fact that they have had a fair amount of experience with Label Aire systems on flat paper applications as well as on conical paper cups and they have had some bad experiences along the way apparently in Chicago in particular.

They will require that the labels system have an efficiency of at least "1/10 of 1%" ( or 99.9%)

told me today that they are having serious doubts about labeling in line as we have proposed due to their past experience and since it is so important that this project is a success right from the start.

As a result they would like for us to meet with them on Tuesday Feb 13<sup>th</sup> at 1:00pm to discuss the system requirements.

Their current thinking process – as of today is that they would feel more comfortable labeling off line of the printer.

Accordingly, [redacted] asked that we are prepared to come in to discuss an off line system as well. Speeds 250-300ppm or more. He claims that redundant systems have been mentioned to achieve the efficiencies mentioned. (We will need to talk with Bob DeGrande again and be ready to make a new proposal.)

## 2) Labeling test time period:

... said that we agreed to have a test they could see within 60 days. ( PVG confirmed this – however I honestly do not remember us agreeing to a specific time line for this test other than A.S.A.P.

3) I told \_\_\_\_\_ we would need 30,000 cups by Feb 28<sup>th</sup> for the label testing and 30,000 more by May 7<sup>th</sup> for the printer/Rennco testing. ( He indicted they should be able to have these without any problem, infact if we needed them sooner they could comply. I told him the cups must be reprentative of their actual product.

4) They need for us to provide a drawing asap as well for their floorplans.

Jim D.- how fast can we provide a drawing. We also want to provide this soon as we get 10% once this is available.

6) I also masked Bob if they supplied the system to Van Dam. He said they did not. He claims that the Label Aire system is the most rugged system available (German type approach) and will stand up to 24/7 type of needs.

He also said that [redacted] will want to stick with the Label Aire System for sure as they have a long history together and have become very close partners.

Rod

L2

paulc

**From:** rod <rb@polytype-usa.com>  
**To:** Jim Dominico <jd@polytype-usa.com>; Paul Cino <pc@polytype-usa.com>  
**Cc:** Carmen Fraguas <cf@polytype-usa.com>; Pieter van der Griendt <pv@polytype-usa.com>; Felix Gomez <fg@polytype-usa.com>  
**Sent:** Thursday, February 01, 2001 6:01 PM  
**Subject:** Order

Dear Jim & Paul:

Please note that in a conversation I had today with \_\_\_\_\_ - he advised the following:

- 1) The drawings that we provide must reflect the Utility requirements including the Rennco Sleever (and Labeler).
- 2) **Both machines are to get 1set of 32oz. tooling** Plus 1 additional set of 32oz tooling.
- 3) \_\_\_\_\_ asked that I provide them will "heat loads" for our equipment( amount of heat generated) for their air conditioning.
- 4) He requested that we get together again for a final meeting to review the entire order requirements. (I suggested we do this on the meeting set up for Feb 13th.)
- 5) They will have their "Label Guru" at the meeting on the 13th as well as \_\_\_\_\_

Please also note the following from my notes from our meeting:

- 6) We must confirm the nearest supplier of CTS drives to their \_\_\_\_\_ facility.
- 7) Rennco Sleever: They have "left hand" and "right hand" configurations. It would appear that their left hand is what we need for our standard (right hand) machines.
- 8) We need to provide roller drawings that include the "core dimensions" ( not just the rubber dimensions).
- 9) The labeler must be easily removable (on casters) or some other means. They anticipate only labeling 10% or so of their total product run.
- 10) Labeler must have the reels at a height that is easily accesible for a short person to change.
- 11) They are planning on a stack count of 25.
- 12) Rennco & Printers- Must meet \_\_\_\_\_ Specifications.( Rennco is familiar with this - Paul Simms is the contact.)

Rod

M

With:	Bob Degrande	Date:	February 2, 2001
Comp:	US Tape & Label/ for	Loc:	
By:	Rod Brynildsen	Orig:	p:\blank forms\tc-report.dot
Subject:	Labeling Systems	E-Copy:	Pv,fg,jd,cf , , ,

I spoke with Bob Degrande today about the project.

- 1) Discussed the efficiency issue: Bob said they have offered and would be willing to offer a "Labeling efficiency of 99.8 – 99.9% for
- 2) The high 80- low 90 % figure he was referring to the other day would apply to overall "line efficiencies" ( or running efficiencies.) Down time due to process considerations etc.
- 3) The Chicago incident that was referring to was 18 years ago!

Bob explained that was trying to label on the cup finisher and they had many problems at the time. They eventually went to an off line application and were able to label successfully – however they had many problems before hand. So apparently has not forgotten this.

- 4) I asked Bob about alternative systems – as US Tape & Label also offers different types of systems and he explained that there are several alternatives –however none are right for this application.

- A) WIPE ON / ROLL ON LABELING: Is limited in speed.( 300-400ft per min – were as Air blow allows up to 800ft / min. ( Unless you start looking at the rotary type systems such as KRONES which are very expensive.(\$1,000,000)
- B) TAMP ON: Is also too slow.
- C) VACUUM BELT TRANSFER: Too slow as well.

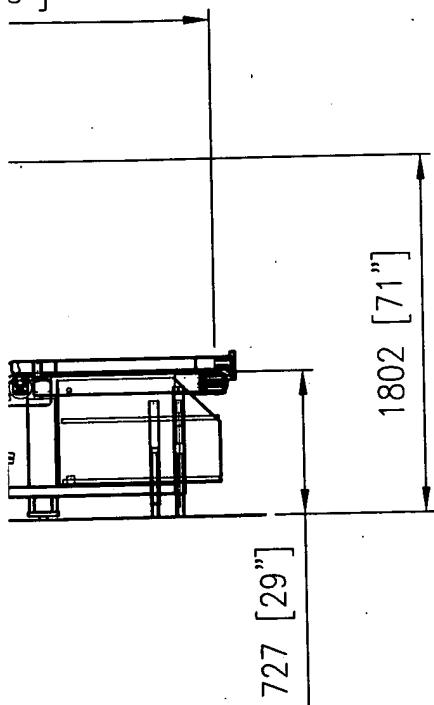
- 5) The one problem Bob needs to look into is the type of machine that we will need to accomodate the NO 2 Label Position. ( Bottom Narrow end off the roll first)

This may require a "opposite hand" system and he isn't sure at this moment if this will work on our turret. He will advise.

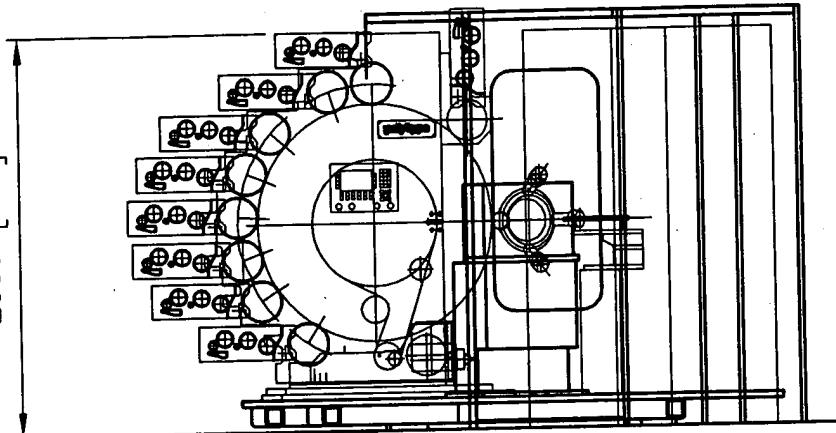
I originally thought that would be able dictate the label style. However he explained that although that is normally the case, in this promotional business that everyone is bidding on, is driven by one promotional company primarily named "Presaco"(sp?) and the primary label supplier is a company named Didler Brothers. In an effort to standarize the various suppliers Didler has dictated that unless an order is placed for over 20,000,000 labels at a time all orders must be Label Position No.2.

Bob will review our drawing and confirm next week if it will work.( opposite hand)

8"]



2009 [79"]



2/23/01	C	ADDED LABEL-AIRE UNIT	PC
2/16/01	B	ADDED UTILITIES	PC
DATE	S	REVISION	BY ECN#

STOCK SIZE		DESCRIPTION		HEAT TREAT	FINISH SPECIFICATIONS	QUANTITY REQUIRED
MATERIAL						
DRAWN	JD 02/07/01	SCALE	FOR NON-TOLERANCED DIMENSIONS ONLY			QD-135.335-NC
		1:25	UP TO	OVER	OVER	
			6-30	30-120	120-320	
			MIN. $\pm 0.3$	MAX. $\pm 0.6$	MIN. $\pm 0.8$	MAX. $\pm 2.0$
			MIN. $\pm 1.0$	MAX. $\pm 1.5$	MIN. $\pm 2.0$	MAX. $\pm 4.0$
DO NOT SCALE DRAWING		SHEET 1 OF 1				
polatype America						
TITLE- FL.PLAN-BDM-611/920-RH-W/BAGGER						

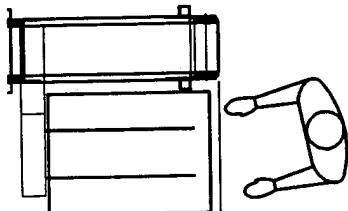
## NOTICE

This Drawing is confidential, has not been published, and is the sole property of Polatype America Corporation and is lent to any borrower for his confidential use only. In consideration of the loan of this drawing, the borrower promises and agrees to return it upon request and agrees that it shall not be reproduced or copied in any manner, lent or otherwise disposed of for which it is specifically furnished.

01

M ROLL

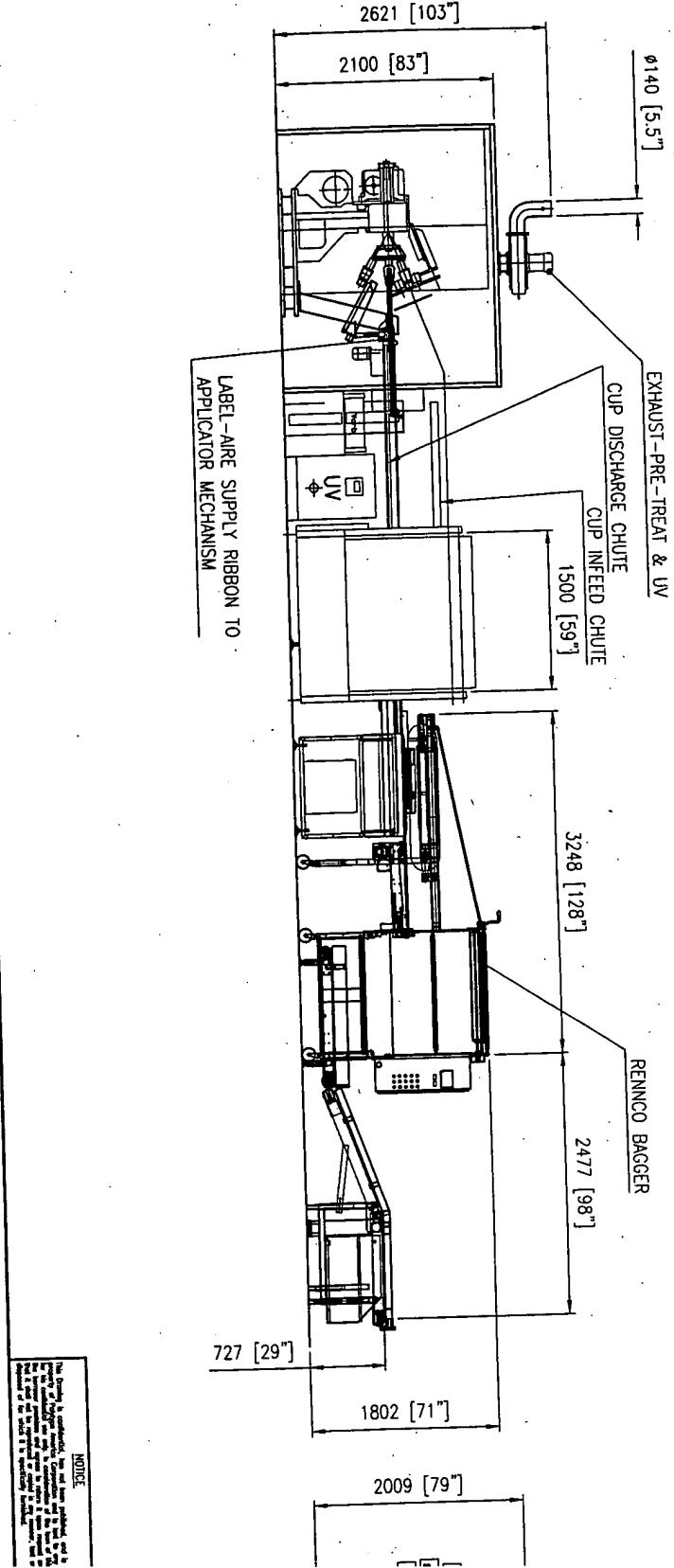
RENNCO ELECTRICAL ENCLOSURE



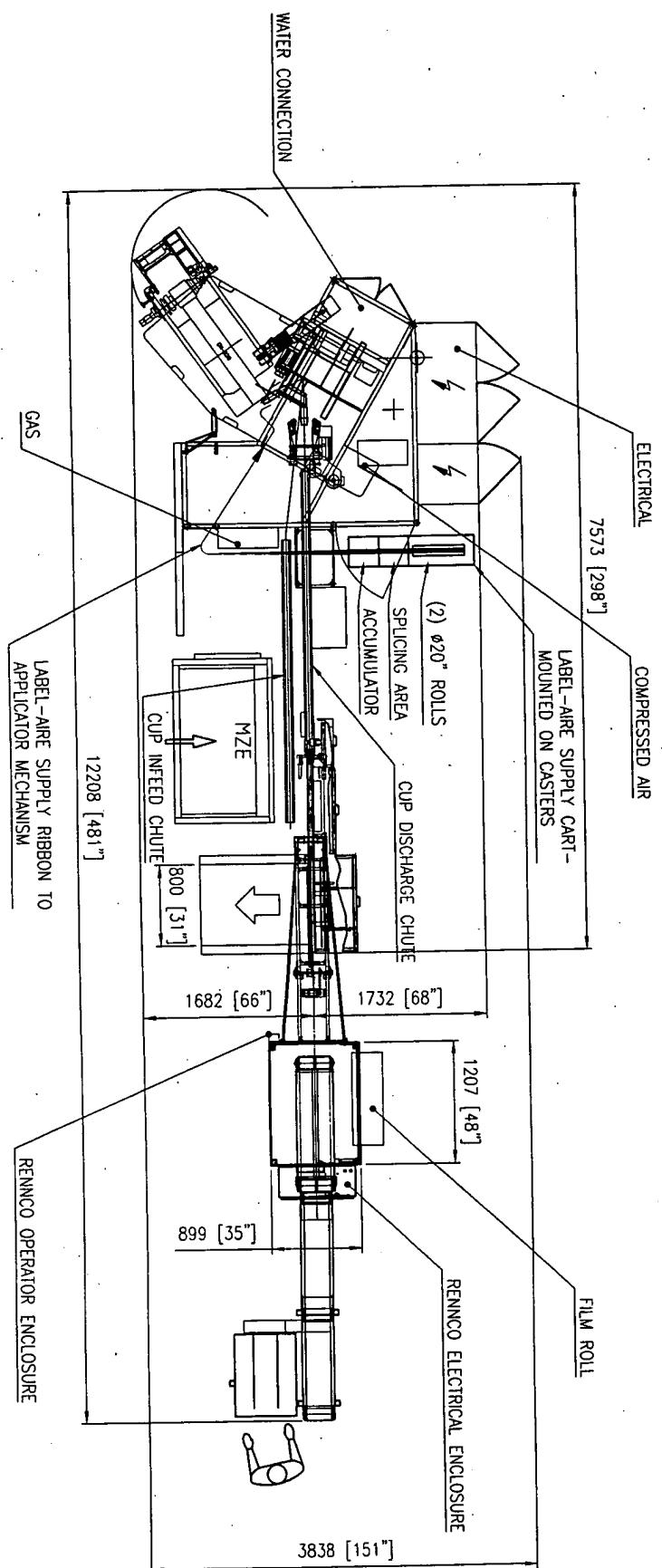
UTILITY SERVICE	UTILITY SERVICE
POLYTYPE UNIT	RENNCO UNIT
ELECTRICAL:	ELECTRICAL:
460 VAC	460 VAC
80 AMP	6 AMP
3 PH	1 PH
60 Hz	60 Hz
AIR:	AIR:
75 CFM	5 CFM
87 PSI MINIMUM	87 PSI MINIMUM
145 PSI MAXIMUM	145 PSI MAXIMUM
CLEAN & DRY	CLEAN & DRY
NATURAL GAS:	
40 CU FT/HOUR	
40,000 BTU/HOUR	

ENCLOSURE

02



03



**Paul Cino**

---

**From:** paulc [pc@polytype-usa.com]  
**Sent:** Tuesday, March 13, 2001 10:16 AM  
**To:** Bob DeGrand  
**Cc:** Jim Dominico  
**Subject:** BDM-611/920 Floor Plan



Ld132377.dxf

Dear Bob,

Attached is floor plan LD-132.377-NA, which shows our BDM-611/920 Cup Printer with a 44 oz & 32 oz stadium cup. I sent this as a dxf file, if you need this in another format please let me know.

Best Regards,

Paul Cino  
Polytype America  
Phone 201-995-1000 ex 330  
Fax 201-995-1080

P

**Polytype America Corp.**

<b>To:</b>	Bob DeGrand
<b>Company:</b>	USTL
<b>Phone:</b>	800-569-1906 ex 425
<b>Fax:</b>	314-824-4422

<b>From:</b>	PAUL CINO
<b>Company:</b>	POLYTYPE AMERICA CORPORATION
<b>Phone:</b>	201-995-1000
<b>Fax:</b>	201-995-1080
<b>Email:</b>	pc@polytype-usa.com

<b>Date:</b>	13, March 2001
<b>Pages including this cover page:</b>	2

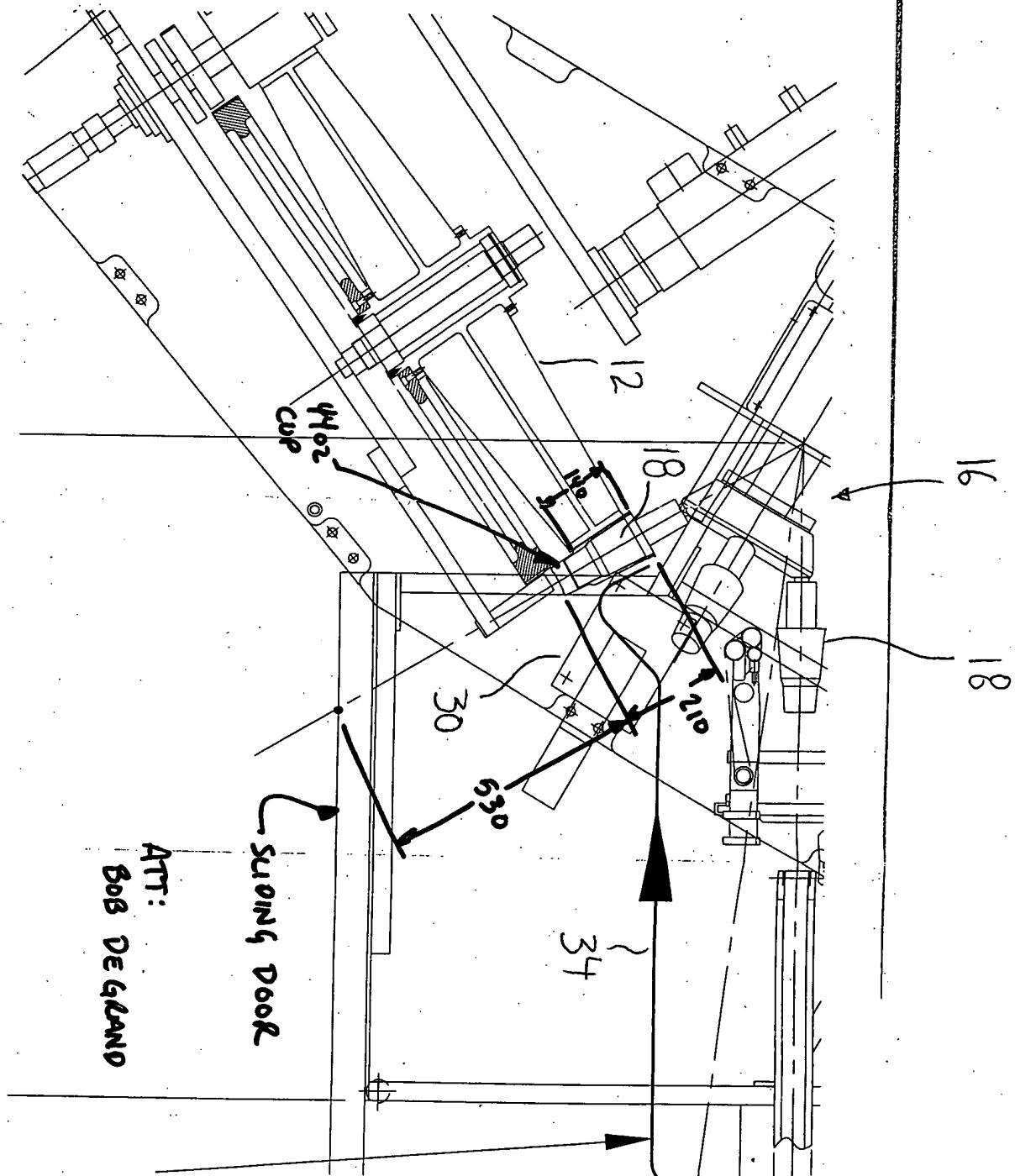
Dear Bob,

Attached is a layout showing our BDM-611/920 Cup Printer with a 44 oz. Cup at the print station. I marked in some dimensions for clearance to our front guard. I will e-mail you this layout today.

Best regards,

Paul Cino

Q1



Q2

## Paul Cino

---

**From:** Paul Cino  
**Sent:** Thursday, April 26, 2001 9:30 AM  
**To:** Luciano Chiovitti (E-mail)  
**Cc:** Jim Dominico (E-mail)  
**Subject:** BDM-611/920 Drawings for Label-Aire Unit

Dear Luciano,

Attached are drawings 1024854,1042629,1-15314,AB-135.477-CA & QD-135.335-NC.  
If you need more information please call me.

Best Regards,

Paul Cino  
Poltype America Corp.  
Phone: 201-995-1000 ex 330  
Fax: 201-995-1080  
E-mail: pc@polytype-usa.com



1024854.DXF



1042629.DXF



1-15314TU.DXF



ab135477.dxf



QD135335.dxf

R



May 8, 2001

050801

Mr. Jim Dominico  
POLYTYPE AMERICA  
10 Industrial Avenue  
Mahwah, NJ 07430

Dear Jim:

The following is an amended quote you requested for a Label-Aire machine to be integrated to your cup-printing machine. We are pleased to submit the following equipment proposal:

### EQUIPMENT PROPOSAL

#### Application specification:

Custom Labeling System to apply coupon labels to plastic cups while on your indexing turret printer.

#### System to include:

- 1 - Custom Model 2111CD LH air blow labeler, left handed, with an approximate 18" to 24" extended snorkel with slim line extension to fit "inside" turret indexer geography; high speed Sigma stepper motor dispense drive with custom CPU; air blast reservoir; microprocessor electronics "works in a drawer" with remote redundant operator keypad - display control, photoelectric label sensing; 12" diameter unwind and rewind assemblies removed. Unit mounted at approximately reels up angle to match turret "9 O'clock" spindle position for labeling outside tapered wall of cups.

Note: Snorkel extension includes the stepper motor and drive roller, is mounted to custom X-Y machine tool slide assembly independent of faceplate and is used for label positioning. The snorkel will have independent angle adjustment to match the rotation of the product for leading edge letdown and peel tip attitude adjustment to ensure that the label is parallel to the cup surface.

Cont'd...

Polytype America  
May 8, 2001

- 2 -

- 1 - Remote electronics control panel with 10 ft. umbilical cord.
- 1 - Standard photoclectric product sensor included for set-up, testing or operational purposes.
- 1 - Non Stop Dual Unwinder with turn bar for web path guiding to labeler, with splicing table and low label alarms with end of web shut off to labeler, with powered rewind liner take-up assembly.
- 1 - Custom grid box (designed for a specific label size) with remote HiVac fan to ensure optimum labeling accuracy.
- 1 - Velocity compensation kit to ensure label placement through changing product surface speeds.

**TOTAL PRICE: \$**

\*Jim, the reason for the price increase is that there would be some engineering required for the first machine. The pricing on additional machines would be at the \$ figure I recently quoted to you.

**Warning**

Please advise your customer that, the U.S. Department of Labor, Occupational Safety & Health Administration (OSHA) requires all manufacturers, distributors and importers supplying hazardous materials to furnish Material Safety Data Sheets (MSDSs) with those materials. Only the suppliers know if a particular material is subject to this requirement. All substances and materials provided under these guidelines will be returned to the customer for disposition after these are no longer required by Label-Aire. A detailed explanation of this program can be found in Label-Aire's April 9, 1993 general memorandum.

**Label size:**

Minimum is  $\frac{1}{4}$ " x  $\frac{1}{4}$ " and maximum would be 3" x 3".

**Label tolerance:**

$\pm 1/32$ " static stack. Label position accuracy is directly related to consistent directional make-up of the product to be labeled.

**Speed:**

300 cycles per minute.

Cont'd...

S2

Polytype America  
May 8, 2001

- 3 -

Expected shipment:

Shipment from Fullerton, California is estimated at 10 to 12 weeks after receipt of order and confirmation of design details per site visit. An exact delivery date will be confirmed upon notification of an award.

Installation and service:

U.S. Tape and Label would provide you with a field technician to install your machinery and train your staff at a rate of \$70.00 per hour plus travel and living expenses.

This proposal is valid for 60 days.

Jim, thank you for this opportunity to be of service. Should you have any questions, please feel free to call me at (800) 569-1906.

Sincerely,

U.S. TAPE AND LABEL CORPORATION



Robert J. DeGrand  
Sales Manager  
Label-Aire Division

S3

TOTAL P.04

**POLYTYPE AMERICA CORP.**  
10 INDUSTRIAL AVE  
MAHWAH, NJ 07430  
Tel: (201)995-1000  
Fax: (201)995-1080

## **PURCHASE ORDER**

**PURCHASE ORDER NUMBER:** 021671

021671

PURCHASE ORDER DATE: 05/31/01

U.S. TAPE AND LABEL CORP.  
P.O. BOX 502424

Polytype America Corporation  
10 INDUSTRIAL AVE  
BAY #1  
MAHWAH, NJ 07441

ST. LOUIS, MO

63160-2424F

07430

ST. LOUIS, MO

63160-2424F

07430

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1

SHIP VIA BESTWAY	F.O.B. YP	TERMS 0/0 NET 30	BUYER BG	CONFIRM TO B. DEGRAND	CERT COMP N	VENDOR USTAPE
INVENTORY ID	PROMISED DATE	REQUIRED DATE	UNIT	QUANTITY	UNIT PRICE	EXTENDED PRICE
PB-135.883 UNIT-LABEL-AIRE FOR: J629-1 , J629-2 AS PER QUOTE # 050801 OF MAY 8, 2001	08/24/01	CUSTOM MODEL	EA 2111CD-LH, SEE DWG FOR INFO.	2.00		

\* Y = CERTIFICATE OF COMPLIANCE REQUIRED

**TOTAL**

FORM# SOL7- PO TRANS-MICRO, INC., FT. PIERCE, FL (407) 464-5335

OFFICE COPY

**AUTHORIZED SIGNATURE**

Thomason, Jim

**From:** Luciano Chiovitti [chiovitti1@home.com]  
**Sent:** Monday, June 11, 2001 4:57 PM  
**To:** George Allen (E-mail); Robert DeGrand (E-mail); Karen Drennen (E-mail); jd@polytype-usa.com  
**Cc:** Ralph Torres (E-mail); Jim Thomason (E-mail); jclinkenbeard@label-aire-inc.com; dm@polytype-usa.com; pc@polytype-usa.com  
**Subject:** Polytype visit Notes  
**Importance:** High

Gentlemen,

I visited the Polytype facility on Friday to review the require integration of the very custom high speed 2111 air blow into the Polytype cup printing machines for

is at Polytype this week to buy off the system. They will field retrofit the labelers @ due to the long delivery of the 2111s and 's production requirements.

We reviewed the integration of the two cup printing units and found that they will both require the identical left-hand labelers, web paths and left-hand NSDUs. The next steps to complete the integration are:

- 1) Polytype to re-layout 2111 extended snorkel to optimize fit into cup printing machine. They will email us a revised drawing w/o June 11.
- 2) Polytype will supply encoder pulse train to 2111 from internal electrocam device. Label-Aire to provide electrical wiring (cable connection) and voltage requirements for the 100 Pulse/inch signal.
- 3) Polytype to supply product signal to labelers. Label-Aire to supply electrical wiring (cable connection) and voltage requirements for product signal - dry set of contacts desirable.
- 4) Polytype to mount custom grid vacuum box into existing machine. Label-Aire to provide detail drawings of component.
- 5) Polytype wants the snorkel to be as compact as possible. All deviation rollers and peel tip, etc. to be cut down to 3" web width. Actual drive roller to accommodate up to 4" web width. Stepper motor to mount on same side as drive roller (if possible) with drive belt on back side of snorkel plate. (There isn't much room and the unit should be as low profile as possible)
- 6) Polytype to mount Snorkel with X-Y table to cup printing machine. They require detailed dimensional drawings with mounting and pivot details. Label-Aire to provide ASAP.
- 7) Polytype to install vacuum take-away system. Label-Aire to recommend supplier - Polytype to purchase and integrate.

8) Poly Type would like remote 2111 enclosure to mount to NSDU if possible - send concept drawings ASAP.

9) All cable connections, pneumatic hoses, vacuum hoses to be clearly labeled and quick disconnect design.

10) Label-Aire to provide wiring for error connectors - head fault signal required.

11) The cup is rotating in a counter-clockwise direction at a maximum surface speed of up to 1250 Ft/min (Polytype to confirm). Label-Aire to include Velocity comp CPU able to accommodate the speed fluctuation from min to max cup speeds - Polytype to supply.

12) Poly type to mount snorkel in such a manner to add the Z axis adjust to accommodate different diameter cups - the encoder signal supplied to Labeler must be changed to match speeds of different diameter cups. Polytype to confirm.

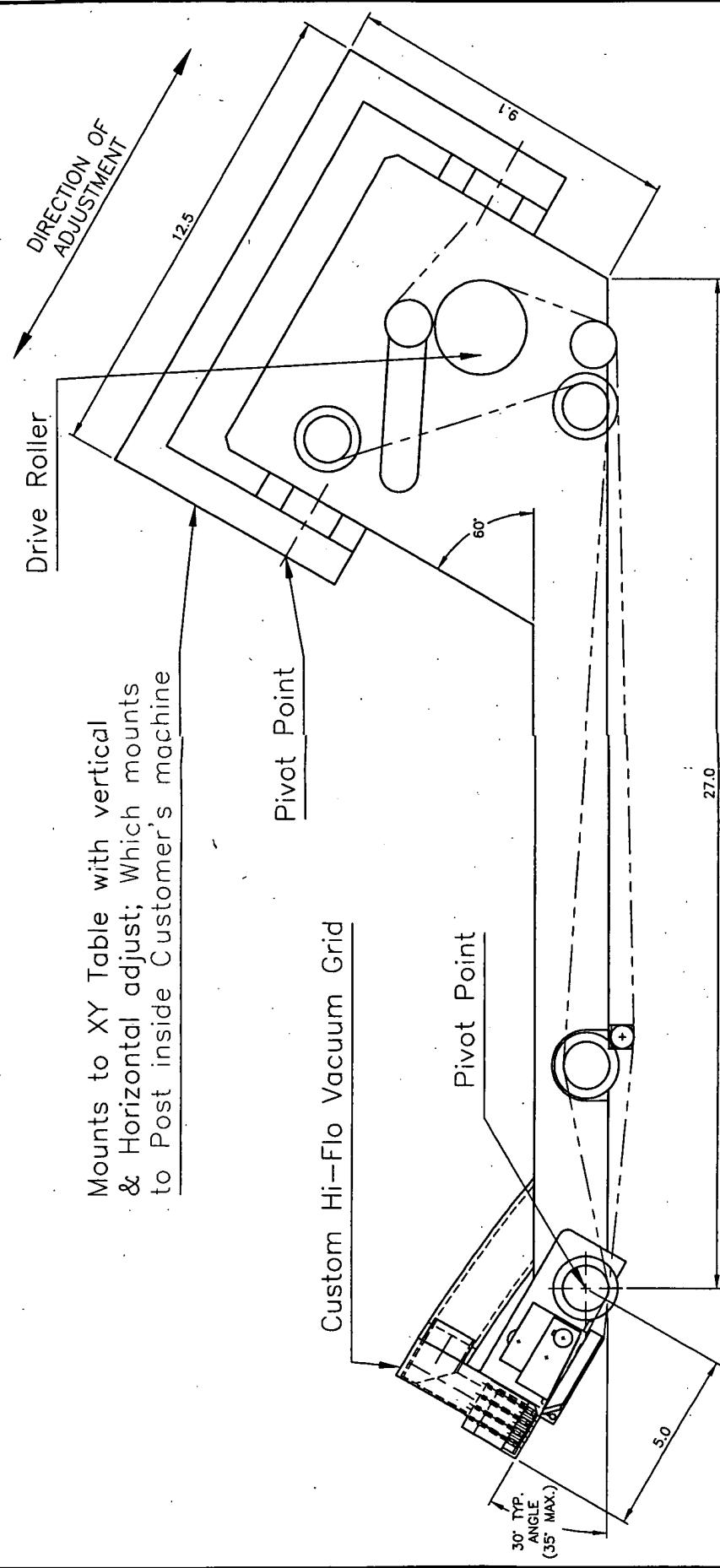
13) The maximum rated speed is 300PPM on a 3" feed labeler. Label-Aire 2111 with Sigmax stepper motor must be geared to handle 2000"/min dispense speed.

14) Poly type to supply web turnbars (or similar device) to route label supply from the NSDU to the Snorkel.

Please review document and feedback to me directly with comments and suggestions.

Regards,  
Luciano Chiovitti P.Eng  
North American Account Manager  
Label-Aire-Inc.  
ph: (905) 257-0288  
fx: (905) 257-0388

U2



NOTE: ALL DIMENSIONS IN INCHES

6/13/01	B	ROTATED MOUNTING AREA 30	00	-
DATE	S	REVISION	BY	ECN#
NOTICE				
<p>This Drawing is confidential, has not been published, and is the sole property of Prototype America Corporation and is loaned to our customer, <b>Labelaire Snorkel</b>, for the sole purpose of manufacturing parts for the <b>Labelaire Snorkel</b> product. It is the property of Prototype America Corporation and is to be returned to Prototype America Corporation when no longer needed. It is not to be reproduced or copied in any manner, but is lendable or copied for which a specific copy furnished.</p>				
NOTICE				
<p>DO NOT SCALE DRAWING</p>				
SCALE	1:2	1:1	1:1	1:1
DATE	6/12/01	REV	REV	REV
PRINT INFORMATION				
NAME	Prototype America	DESIGNER	DATE	REVISOR
ADDRESS	12345 10th Street	12345 10th Street	12345 10th Street	12345 10th Street
PHONE	(555) 555-1234	PHONE	(555) 555-1234	PHONE
FAX	(555) 555-1234	FAX	(555) 555-1234	FAX
DRAWING NUMBER				
LC-135.888-NB				
TITLE-LAYOUT-LABELAIRE SNOKEL FOR BDM-611/920				

**Paul Cino**

---

**From:** Paul Cino  
**Sent:** Wednesday, June 13, 2001 1:49 PM  
**To:** Luciano Chiovitti (E-mail)  
**Subject:** Revised Snorkel Layout

Dear Luciano,

Attached is a revised snorkel drawing, LC-135.888-NB, which shows the X-Y mount on a 60 degree angle. This arrangement will work better for us, because it follows closer to the angle that the mandrel is located on.

Best Regards,

Paul Cino  
Poltype America Corp.  
Phone: 201-995-1000 ex 330  
Fax: 201-995-1080  
E-mail: pc@poltype-usa.com

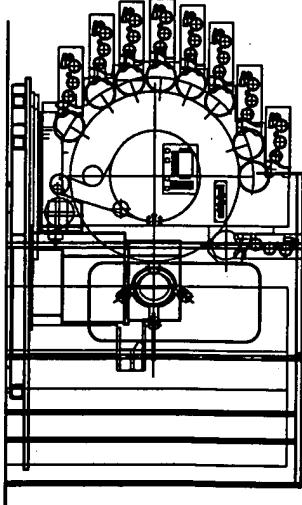
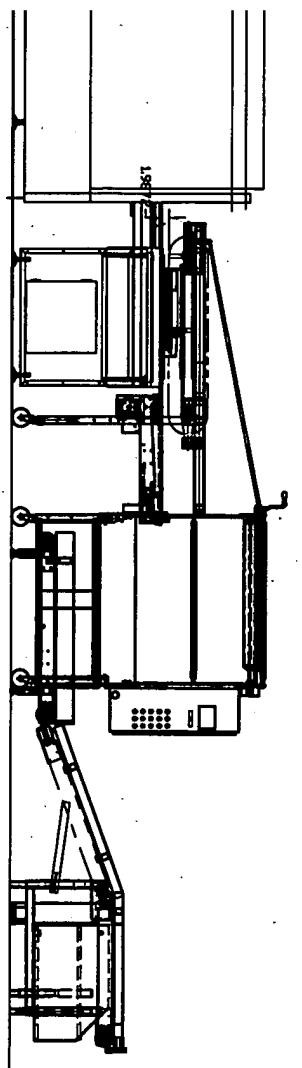
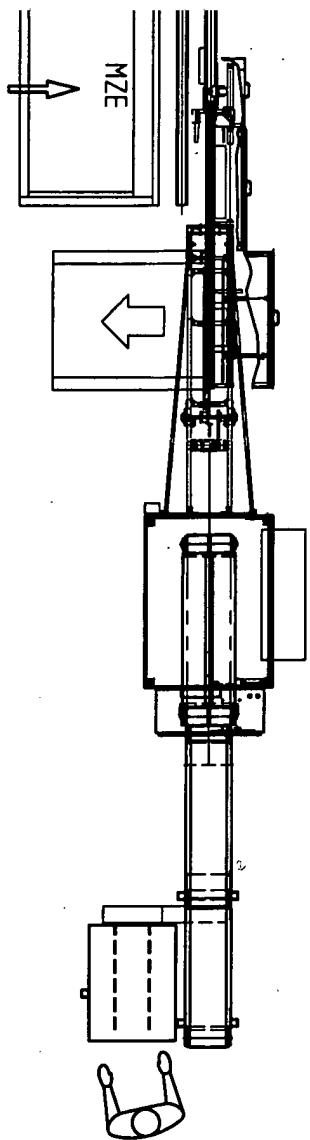


LC135888.dwg

W

111CD

NEW OF  
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2111CD



MTG POST  
EW?

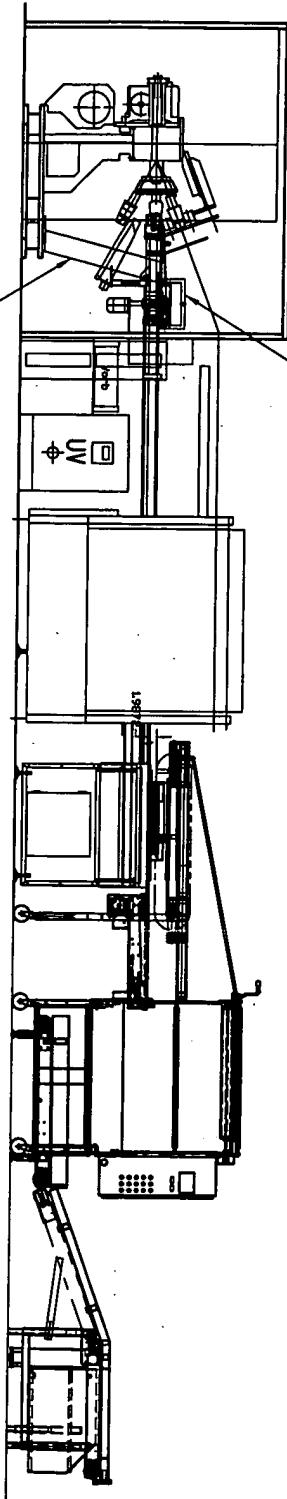
OTHERWISE SPECIFIED

SHALL BE 125/ MAX

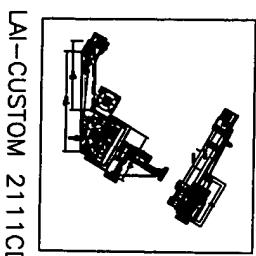
SHARP EDGES .03 MAX  
.03 MAX  
FRACTION:  $\pm 1/16$   
ANGULAR:  $\pm 0^{\circ}30'$

PART NO. V484002	PART REV	ASY NO. V484000	DESCRIPTION		DATE	REV BY	CHKD	APPR
			LTR	REVISIONS				
TITLE	LAYOUT PAPER CUP LBLR (FOR LC)				BIN LOC	DRWN	DATE	
MATERIAL		QTY	UM		CHKD	TN	06/29/2001	ABEL-AIRE, INC
FIN				THIS DRAWING IS THE EXCLUSIVE PROPERTY OFABEL-AIRE, INC. INCLUDING ALL SPECIFICATIONS AND DETAILS THEREIN AND MUST NOT BE COPIED OR ITS CONTENTS REVEALED TO OUTSIDE PARTIES WITHOUT THE WRITTEN CONSENT OFABEL-AIRE, INC. DRAWINGS MUST BE RETURNED WITH QUOTATION AND/OR COMPLETION OF ORDER.	APPR	DATE		DWG NO. V484002
			SCALE					SHEET 1 OF 1

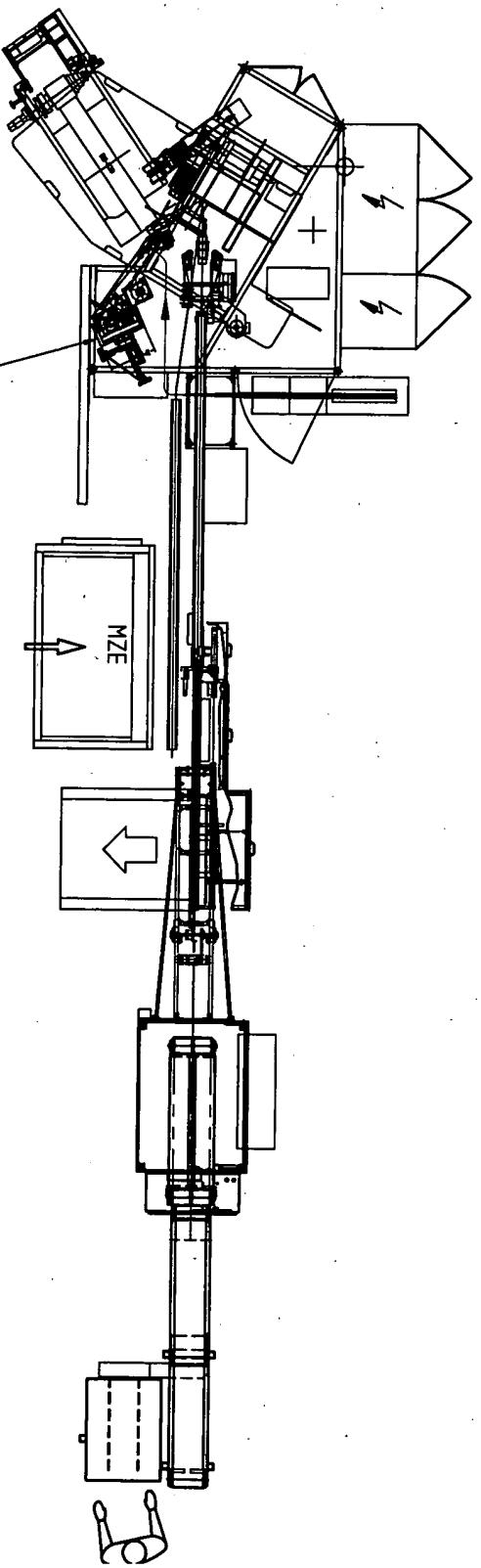
X1



X2

FRONT VIEW OF  
LAI-CUSTOM 2111CD

LAI-CUSTOM 2111CD

TOP VIEW OF  
LAI-CUSTOM 2111CD

10

9

8

K

J

H

G

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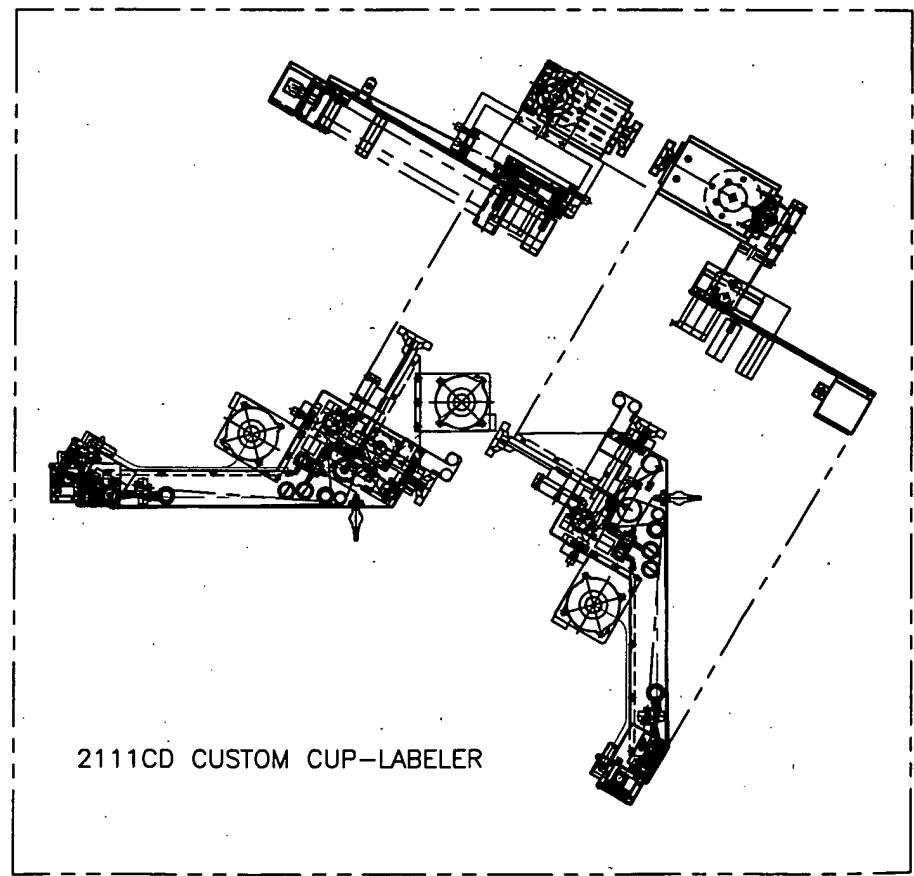
E

D

C

B

A



X3

REF PART

1. DIMENSIONS

2. ALL MACHIN

3. REMOVE BURR

4. ALL FILLET

5. DO-NOT SC

**Paul Cino**

---

**From:** Paul Cino  
**Sent:** Monday, July 09, 2001 8:28 AM  
**To:** Luciano Chiovitti (E-mail)  
**Cc:** Jim Thomason (E-mail)  
**Subject:** Label-Aire Unit

Dear Luciano,

Attached is a layout showing the location of the UV post and sliding front door in the plan view.  
I have also sent the detail of the UV post too.

In regards to your drawing V484002, the X-Y adjustments can not extend thru the enclosure as shown.  
Can these adjustments be mounted below the unit?  
It looks like the vacuum pump might interfere with the UV post. Can this pump be moved to a new location?

We are trying to get a drawing from Switzerland that shows the UV unit attached to the side of the post,  
because it looks like it might be close to the bottom of the label unit.

Best Regards,

Paul Cino  
Polytype America Corp.  
Phone: 201-995-1000 ex 330  
Fax: 201-995-1080  
E-mail: pc@polytype-usa.com



Le136102.dwg



1-15314.dwg

Y

**Paul Cino**

---

**From:** Paul Cino  
**Sent:** Wednesday, July 11, 2001 5:05 PM  
**To:** Luciano Chiovitti (E-mail)  
**Cc:** Jim Thomason (E-mail)  
**Subject:** Label-Aire Unit

Dear Luciano,

Attached is a revised layout showing the UV assembly mounted on the angled post.  
Please be aware that this housing slides down 180mm, as shown in phantom on the drawing.  
There is an exhaust hose and electrical cable that are connected to this housing.  
Your unit must have adequate clearance around this UV assembly.

Best Regards,

Paul Cino  
Poltype America Corp.  
Phone: 201-995-1000 ex 330  
Fax: 201-995-1080  
E-mail: pc@polytype-usa.com



Le136102.dwg

Z

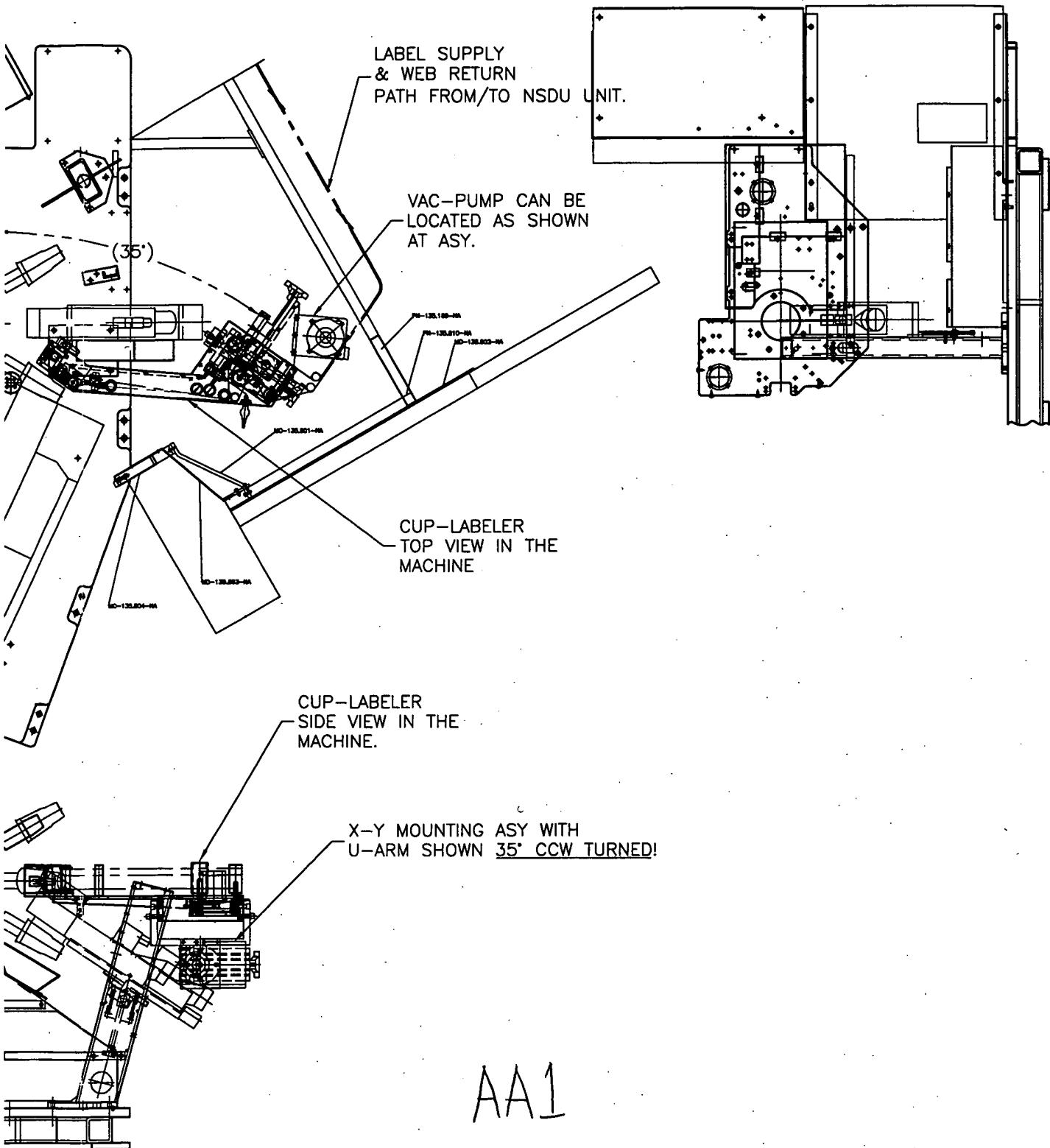
5

4

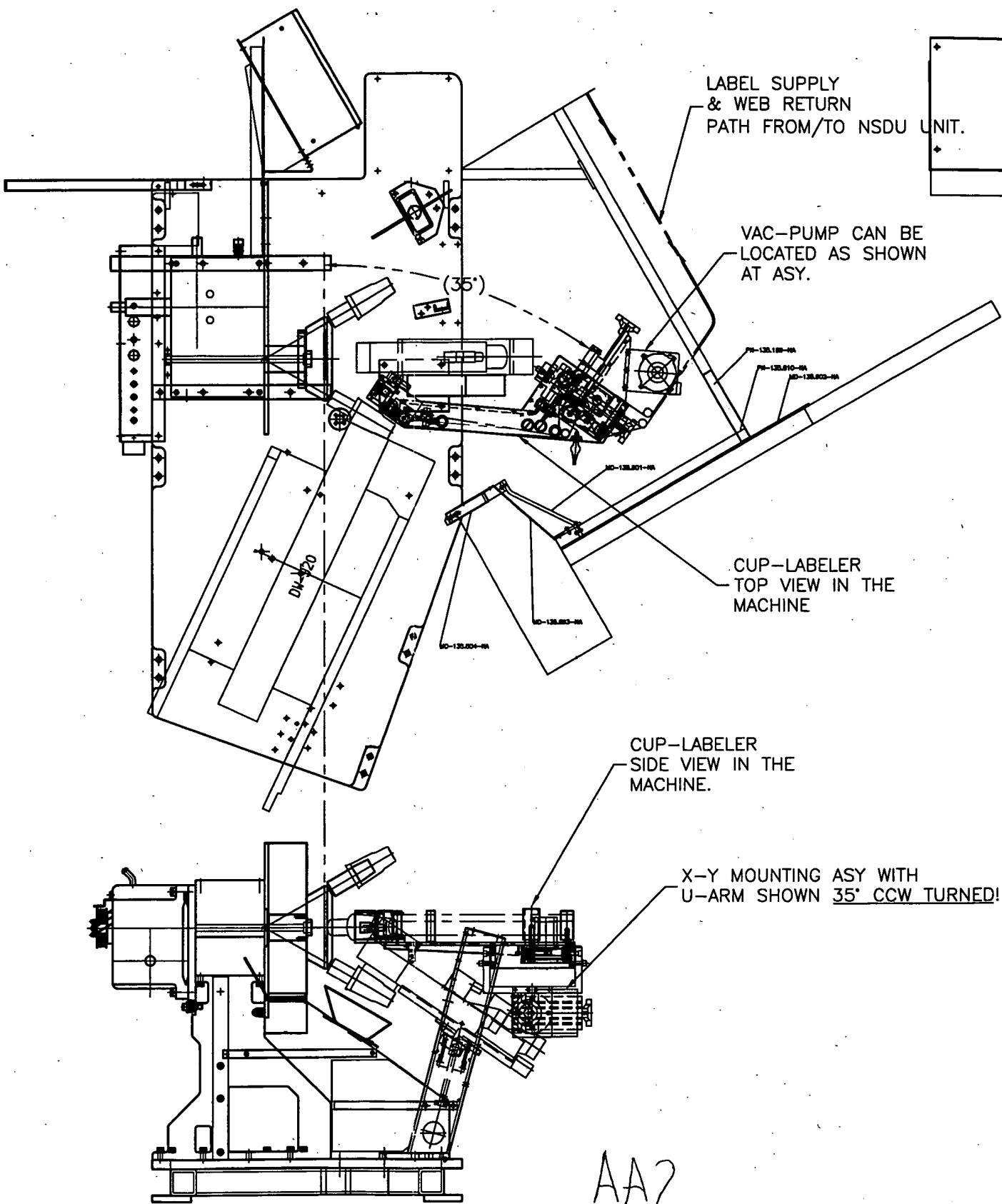
3

2

1



PART NO.	PART REV	ASY NO.	LTR	DESCRIPTION		DATE	REV BY	CHKD	APPR
				REVISIONS					
V484005		V484005							
TITLE	LAYOUT CUP LBLR (FOR POLYTYPE)			BIN LOC	DRWN	DATE			
MAT'L		QTY	UM	TN	08/07/2001				
XX = ±.03 1/16 0'30'				CHKD					
FIN		SCALE		APPR					
				DWG NO.					
				V484005					
				SHEET 1 OF 1					



REF PART	PART NO.	PART REV	ASY NO.	LTR	DES
	V484005		V484005		
UNLESS OTHERWISE SPECIFIED		TITLE LAYOUT CUP LBLR (FOR POLYTYPE)			
1. DIMENSIONS AND TOLERANCES ARE IN INCHES	6. TOLERANCES:				
2. ALL MACHINED SURFACES SHALL BE 125/ MAX	DECIMALS: XX = $\pm .03$				
3. REMOVE BURRS AND BREAK ALL SHARP EDGES .03 MAX	XXX = $\pm .005$				
4. ALL FILLET RADII .015 MAX	FRACTION: $\pm 1/16$				
	ANGULAR: $\pm 0°30'$				
		MAT'L	QTY	UM	THIS DRAWING IS THE EXCLUSIVE PROPERTY INCLUDING ALL SPECIFICATIONS AND DETAILS NOT BE COPIED OR ITS CONTENTS REVEALED WITHOUT THE WRITTEN CONSENT OF LABEL MUST BE RETURNED WITH QUOTATION AND/OR C
		FIN		SCALE	